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UNIVERSAL DOCUMENTATION SYSTEM

HANDBOOK

VOLUME 2



PROGRAM REQUIREMENTS  
AND  
OPERATIONS REQUIREMENTS  
DOCUMENTS

Prepared by  
Documentation Group  
Range Commanders Council

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#### PREFACE

At the 31st Meeting of the Range Commanders Council (RCC) on 7-8 November 1967, the members of the RCC mutually approved the documents and procedures prescribed in this handbook. They agreed that UDS use is mandatory by only the national ranges and their users; however, adoption by others is encouraged.

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## SECTION 1

### INTRODUCTION

#### 1.1 GENERAL

This handbook describes the Universal Documentation System (UDS). The UDS is used to formally document user agency test program support requirements and support agency capabilities and commitments to support those requirements.

The UDS handbook is published in three volumes. Volume 1 describes the total UDS structure, the individual documents within the system, and the use and control of the system. Volume 1 also includes sample forms and specific instructions for the Program Introduction (PI) and Statement of Capability (SC) documents which are the first level of UDS documents.

This volume, Volume 2, describes the system and the procedure for preparation of the Program Requirements Document (PRD) and the Operations Requirements (OR) document. Each requirements document will be prepared by the user agency according to the format and policies prescribed in this volume.

Volume 3 describes procedures for the preparation of the Program Support Plan (PSP) and the Operations Directive (OD) document.

#### 1.2 APPLICABILITY

The UDS and the procedures described in this handbook are intended for application by those agencies which have adopted the UDS. Federal or civilian agencies authorized the use of resources under the control of support agencies which have adopted the UDS should submit their requirements according to the procedures contained in this handbook and according to any instructions prepared by those 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 DISTRIBUTION

Users of the UDS may obtain UDS handbooks and forms, supplemental instructions, and assistance from the Documentation Centers listed in appendix A of this volume.

#### 1.5 REVISION

Recommendations for revision of this handbook and/or forms may be made to the DG members at the agencies listed in appendix A. Recommendations for revision must include the reason for the change, deletion, or addition,

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and a sample of the changed or added form with its instructions. The DG is responsible for review of the recommendation, and upon approval, for its incorporation and implementation. These changes do not require RCC approval; however, unusual or controversial changes may require RCC approval at the discretion of the DG.

## 1.6 DEFINITIONS

Some of the terms that are frequently used in this handbook are defined below. For a more complete listing, refer to RCC documents *A Glossary of Range Terminology* and *UDS Uniform Test Data and Data Product Nomenclature*.

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" and "support agency" are used interchangeably.

User/Requesting Agency: Any U. S. Government agency, industrial organization, or foreign government 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 user through the UDS.

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

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

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

## 1.7 UNIVERSAL DOCUMENTATION SYSTEM (UDS) DESCRIPTION

### 1.7.1 General

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

The UDS is a dynamic process intended to encourage standardization, yet flexible enough to be used by a number of different agencies and applied

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to both small and large programs without disturbing the basic system concept. Flexibility of the UDS 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.

### 1.7.2 Levels and Documents in the Universal Documentation System

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

<u>LEVEL</u>	<u>USER REQUIREMENTS DOCUMENTS</u>	<u>SUPPORT AGENCY RESPONSE DOCUMENTS</u>
1	Program Introduction (PI)	Statement of Capability (SC)
2	Program Requirements Document (PRD)	Program Support Plan (PSP)
3	Operations Requirements (OR)	Operations Directive (OD)

The Level 1 documents (the PI and SC) are used to initiate test program support planning between users and support agencies. The Level 2 documents (the PRD and PSP) may be required to provide additional or more detailed test program information, especially for the more complex programs. The Level 3 documents (the OR and OD) are used to plan for individual tests within a program.

#### 1.7.2.1 Level 1 Documents

Program Introduction (PI) - 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 tests. Refer to Volume 1 of this handbook for details on PI preparation and submission.

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. Refer to Volume 1 of this handbook for implementation and submission details.

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#### 1.7.2.2 Level 2 Documents

Program Requirements Document (PRD) - The PRD is a detailed full-program planning document normally required for complex or long lead-time programs. The PRD contains the requirements for support desired from the support agency and may contain supplemental information when needed for clarity of purpose. The need for a PRD will be determined during the analysis of the PI or during early planning meetings and will be so stated in the SC. A PRD is submitted to assure that support capability will be available during the time period required by the user organization. Requirements should be submitted immediately upon identification. The user should not delay submittal of the PRD because of incomplete knowledge of support requirements. Specific details and forms used in the preparation of the PRD are presented in section 2 of this volume.

Program Support Plan (PSP) - The PSP is a response to the requirements presented in the PRD and is prepared by the responsible support agency. This response indicates those requirements that can be met from existing resources, those that can only be met through programming new resources or through alternatives, and those which cannot be met by the support agency. The PSP is prepared on a series of forms similar to the PRD and retains the same outline and format. It is maintained current with revised program requirements by corresponding revision for the duration of the program. Specific details and forms used in preparation of the PSP are presented in Volume 3 of this handbook.

#### 1.7.2.3 Level 3 Documents

Operations Requirements (OR) - The OR document is a mission oriented document that describes in detail the requirements for each mission, special test, or series of tests. It is prepared by the user. The PRD and OR must be complete documents capable of standing alone. The OR must not reflect new requirements not previously stated in the PI and/or PRD. The OR format must be consistent with the UDS outline. PRD forms may be used in the preparation of the OR.

Operations Directive (OD) - The OD is the support agency's response to the OR and is the detailed plan for implementation of support functions for a specific test or series of tests.

The format of the OD is not prescribed; however, paragraph numbering should be consistent with the UDS outline used in the previously described documents. PSP forms may be used in the preparation of the OD.

#### 1.7.3 Supplemental Documentation

##### 1.7.3.1 General

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 document but do not exist under the same basic cover, nor follow the same



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management or distribution pattern. The required supplemental documentation is determined by joint user-support agency agreement at the time of program initiation.

#### 1.7.3.2 Document Extracts

Extract documents 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. This relates to the lead support agency concept where one agency is given over-all support responsibility when the total support involves a number of agencies.

Examples of extract documents are as follows:

Program Requirements Document Extract (PRDE) - The PRDE becomes a necessary document when requirements which are placed on one agency in turn create additional (derivative) requirements that must be levied on other agencies. This occurs when it is not appropriate to levy the original PRD on these other agencies. The derivative requirements are prepared on PRD forms in accordance with the standard UDS outline.

Operations Requirements Extract (ORE) - The ORE is identical to the PRDE except it applies to the OR and mission/test level as opposed to the program level. It 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.

#### 1.7.3.3 Sectional Supplements

Sectional supplements break out detailed information of a particular section for separate distribution. Sectional supplements, in general, will be restricted to the larger programs. On the larger programs, certain categories of 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. They should, however, be prepared in standard UDS format and in accordance with the standard UDS outline. They will be clearly identified with the proper UDS title and section number. These supplements may be sections of either a PRD, PSP, OR, or OD. These documents stand on their own and are not bound with the above documents. They are, however, identified as a section of the appropriate document and retain the same format and numbering system.

#### 1.7.4 Other Documentation

Program, mission, or test requirements documents in all instances must be completely 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, explosive forces of pyrotechnics, range safety procedures,

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schedules, security guides, and mission assignments. This information is documented separately and is referenced in the UDS documentation.

#### 1.7.5 Document Structure

The common numbering system that serves as a framework for all documents within the UDS is shown in Table 1-1. Section, page, or paragraph numbers, as applicable to the type of document, will be assigned within the blocks listed under "Section/Page/Paragraph Series." In addition to serving as a framework for the documentation system, the numbering system provides format standardization for all agencies. Further UDS outline detail is shown in section 3 of this volume on Form R 105, Index of UDS Forms and Document Outline.

TABLE 1-1  
UDS-DOCUMENT STRUCTURE

<u>Category</u>	<u>Subject Matter</u>
1	Program Information, Administrative and Technical
<u>Section/Page/Paragraph Series</u>	
1000-1099	Administrative Information
1100-1299	Program and Mission Information
1300-1399	System Information
1400-1499	System Instrumentation
1500-1599	Requesting Agency's Support Instrumentation/Equipment
1600-1699	System Readiness Procedures/Tests
1700-1799	Test Envelope Information
1800-1899	Operational Hazards
1900-1999	Unassigned
<u>Category</u>	
2 and 3	Test/Mission Operational Requirements
<u>Section/Page/Paragraph Series</u>	
2000-2099	Test Operational Concepts/Summaries
2100-2199	Metric Measurement and Data Requirements

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TABLE 1-1 UDS-DOCUMENT STRUCTURE  
(CONTINUED)

<u>Category</u>	<u>Subject Matter</u>
2 and 3 (Con.)	
<u>Section/Page/Paragraph Series</u>	
2200-2299	Telemetry Measurements and Data Requirements
2300-2399	Command Control/Destruct Requirements
2400-2499	Air/Ground Voice Communications Requirements
2500-2599	Composite System Requirements
2600-2699	Other System Requirements
2700-2799	Ground Communications Requirements
2800-2899	Other Communications Requirements
2900-2999	Unassigned
3000-3099	Real-Time Data Display and Control Requirements
3100-3199	Photographic Requirements
3200-3299	Meteorological Requirements
3300-3399	Recovery Requirements
3400-3499	Other Technical Support Requirements
3500-3599	Medical Requirements
3600-3699	Public Affairs
3700-3999	Unassigned
<u>Category</u>	<u>Subject Matter</u>
4	Coordinate Systems/Data Processing and Disposition Requirements
<u>Section/Page/Paragraph Series</u>	
4000-4099	Coordinate System Descriptions
4100-4199	Data Processing
4200-4299	Data Delivery and Disposition Requirements
4300-4999	Unassigned

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TABLE 1-1 UDS-DOCUMENT STRUCTURE  
(CONTINUED)

<u>Category</u>	
5	Base Facilities/Logistics Requirements
<u>Section/Page/Paragraph Series</u>	
5000-5099	Unassigned
5100-5199	Personnel Assignments Schedules
5200-5299	Transportation Requirements
5300-5399	Supply/Storage/Service Requirements
5400-5499	Laboratory Requirements
5500-5599	Maintenance Support Requirements
5600-5699	Facilities Requirements
5700-5999	Unassigned

<u>Category</u>	
6	Other Support Requirements
<u>Section/Page/Paragraph Series</u>	
6000-6099	Other Support Requirements
6100-6999	Unassigned

#### 1.7.6 Categories of Objectives and Classes of Requirements

##### 1.7.6.1 General

Support agency resources and support agency development are planned and based on valid support requirements submitted by the user via the UDS. 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 category of the objectives and the class (accuracy) of the requirements and relate these to basic user needs. Since these objectives and accuracy requirements are vital to support agency planning and development, it is necessary to precisely define discrete categories of objectives and classes of accuracies as well as to establish discrete levels of priorities that relate to these objectives and accuracies.

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#### 1.7.6.2 Categories of Objectives

Category I - Category I objectives are considered mandatory to the program, mission, or test. These objectives are further defined as those items which, if not accomplished, result in significant impact on program schedules, costs and verification of system performance.

Category II - Category II objectives are considered 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 to performance, cost, time, or other constraints.

Category III - Category III objectives are considered desirable for design research, environmental research, associated projects, or a supporting engineering effort. Generally, they are objectives that are beneficial to meet if support can be provided with existing support agency capability.

#### 1.7.6.3 Classes of Requirements

Classes of requirements relate to accuracy and reflect degrees of instrumentation accuracy that are used for implementing, planning, and developing support agency capability. The classes include:

Class I - Class I accuracy represents the minimum acceptable accuracy values and/or interval of coverage that is acceptable to the user.

Class II - Class II accuracy represents more stringent values that achieve program, mission, or test objectives to a greater degree of accuracy.

Class III - Class III accuracies represent the ultimate in desired capability.

Class I needs, coupled with objective priority, are generally used for budget justification planning, engineering planning, and for operational support planning. 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. Class III accuracy generally represents the ultimate in desired capability as well as the state-of-the-art requirement to be used by the support agency in long-range improvement and development planning.

#### 1.7.6.4 Requirement Priority Classification

A priority of need must be defined to evaluate requirements on an overall program, mission, or test basis. The priorities are:

Mandatory - A mandatory classification is the minimum requirement that is essential to achievement of the program, mission, or test objectives for which it is specified.

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Required - A required priority is support that materially aids in the achievement of all objectives and is necessary for detailed analysis of system performance.

Desired - A desired requirement is any support in addition to that which is mandatory or required and which can be obtained.

## 1.8 UDS DOCUMENTATION INITIATION, IMPLEMENTATION, AND TERMINATION

### 1.8.1 General

The PI is the document that officially introduces a program, mission, or test to a support agency. Potential users must submit a PI at the earliest date consistent with the knowledge that support may be required since this information is necessary for support agency planning and resources development. Larger programs may require all three levels of UDS documentation, and the PI may be followed by the PRD and OR which are respectively answered by the SC, the PSP and the OD. Initiation, implementation and termination procedures that relate to the UDS in general are discussed in this section. Procedures relating to initial support agency and user contacts and subsequent establishment of documentation requirements are determined by each support agency.

The official position of the RCC allows users to request specific equipment facilities, instrumentation support and support systems. However, while sometimes useful, such stipulations by themselves are inadequate for support agency determinations concerning requirements validity, optimum facility utilization, priority implementation and support agency development planning. Therefore, the user, by specifying support equipment or systems, shall not be relieved of the obligation to specify detailed data needs sufficient for support agency determinations to be made.

### 1.8.2 Documentation Lead Time

Lead times will vary considerably from program to program depending upon the scope of the support needed. Documentation lead times will be established by negotiation between the user and support agency. Nominal lead times based on past experience are presented below.

<u>Scope of Augmentation Needed</u>	<u>Lead Time in Years</u>	
	<u>Desired</u>	<u>Required</u>
Major additions requiring new facility construction.	4½	3½
Extensive additions to instrumentation not requiring major facility construction.	3½	2½
Instrumentation additions funded by user.	2	1
Minor improvements.	1	½

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

### 1.8.3 Document Implementation

The UDS is designed to accommodate as many conditions as practical. While it is most desirable to have a single 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 ranges/support agencies support unique and unrelated phases of testing, the mission, the flight, and/or recovery. For example: one agency supports engine tests for Program "X," another agency supports structural tests for Program "X," another agency supports launch of Program "X," and another agency provides on-orbit support for Program "X."

The same philosophy applies to the Level 2 documents for which a single PRD and PSP can contain all information at the program level. However, it is also acceptable to have multiple PRDs and PSPs as explained above.

The most detailed level of requirements/support is contained in the OR/OD. Since the Level 3 describes specific tests, a single OR/OD or multiple ORs/ODs (as explained above) are acceptable.

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

a. PI Submission - The potential user should submit the PI as early as possible using best available information. Detailed support needs are often known for minor or short lead-time programs. In these cases the PI is designed to eliminate further documentation except as required for conduct of specific tests. All related program activity should be combined into a single PI. The PI must constitute an authoritative expression of user needs and be properly validated.

After review, the support agency assigns a PI document number, reproduces the PI, and distributes it to interested activities. The user is provided as many copies as requested. If further documentation is required, the support agency will assign blocks of numbers to the user to identify these documents. Refer to Volume 1 of this handbook for PI preparation details.

b. SC Response - The PI and SC are designed to complement each other in establishing the scope of user activity and support provided. They are the means by which the user indicates coordination with the support agency when initiating a new program.

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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 will depend generally on the nature of the program and the purpose for which the PI is submitted. Refer to Volume 1 of this handbook for SC preparation details.

c. PRD Submission - If the PRD is required by the support agency, it is submitted according to the schedule negotiated by the lead agency and user. The support agency normally takes the lead in schedule establishment since the support agencies are most knowledgeable with respect to support acquisition and implementation. Refer to section 2 of this volume for PRD preparation details.

d. PSP Response - The PSP is prepared by the lead support agency. The initial issue of the PSP will include an item-for-item response to the program requirements which are known at the time of issue and stated in the PRD. Emphasis should be placed on identifying those support items requiring long-range planning action even though details of implementation may not be known. As more detailed information becomes available, revisions will be made to the documents to incorporate additional information. Refer to Volume 3 of this handbook for PSP preparation details.

e. OR Submission - This document describes in detail an individual mission or test and establishes requirements for that specific portion of the overall program. Refer to section 2 of this volume for OR preparation details.

f. OD Response - The OD is prepared in response to the OR. The OD provides management information and 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. Standard operation procedures or similar documentation providing general instructions applicable to more than one test may be referenced in the OD. Refer to Volume 3 of this handbook for OD preparation details.

#### 1.8.4 Draft Conferences

When PI and PRD 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 for early coordination, classification and assessment of support questions that may arise. The support agency will make distribution of the PI or PRD draft and advise all interested user and support agency personnel when, and if, they are required to attend a draft conference.

A draft OR conference may be held to bring the user and support agency personnel together to clarify requirements and discuss differences



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between requirements and support available to meet them. Distribution of the draft OR and arrangements for the conference are accomplished in the same manner as for the PI and PRD.

#### 1.8.5 Security Classification

The safeguarding of classified information is a mutual responsibility of all personnel. Adherence to related and established security procedures is mandatory.

The user is responsible for identifying the information to be protected; the proper security classification designations, i.e., TOP SECRET, SECRET, or CONFIDENTIAL, which apply to the information; and the duration of classification in terms of time or future events. Documents will only be accepted if classified by an original classification authority and promulgated in a security classification guide or other authoritative-type document. A copy of the source of classification authority will be submitted with the document.

When the classified pages of large documents are few in number, as with some programs, it may be expedient to publish unclassified basic documents. Classified portions of the program will be published in separate document extracts which have limited distribution and which are subject to the controls imposed by their classification.

Details for proper classification of documents are to be found in the applicable agency security guides, manuals, or regulations. Procedures for marking or stamping will be found in the applicable document preparation instructions in this handbook.

#### 1.8.6 Document Cancellation

The user or originator notifies the support agency by letter when a PRD or OR is to be cancelled. The notice includes the title, number and date of the document. Cancellation of the requirements document automatically cancels the corresponding support document.

#### 1.8.7 Document Disposition

The official file copy of all documents 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.

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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 will depend generally on the nature of the program and the purpose for which the PI is submitted. Refer to section 5 of this volume for SC preparation details.

c. PRD Submission - If the PRD is required by the support agency, it is submitted according to the schedule negotiated by the lead agency and user. The support agency normally takes the lead in schedule establishment since the support agencies are most knowledgeable with respect to support acquisition and implementation. Refer to Volume 2 of this handbook for PRD preparation details.

d. PSP Response - The PSP is the support agency's response to the PRD. The initial issue of the PSP will include an item-for-item response to the program requirements which are known at the time of issue and stated in the PRD. Emphasis should be placed on identifying those support items requiring long-range planning action even though details of implementation may not be known. As more detailed information becomes available, revisions will be made to the documents to incorporate additional information. Refer to Volume 3 of this handbook for PSP preparation details.

e. OR Submission - This document describes in detail an individual mission or test and establishes requirements for that specific portion of the overall program. Refer to Volume 2 of this handbook for preparation details.

f. OD Response - The OD is prepared in response to the OR. The OD provides management information and 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. Standard operation procedures or similar documentation providing general instructions applicable to more than one test may be referenced in the OD. Refer to Volume 3 of this handbook for OD preparation details.

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## SECTION 2

### PRD/OR PREPARATION INSTRUCTIONS AND RESPONSIBILITIES

#### 2.1 GENERAL

The Program Requirements Document (PRD) and Operations Requirements (OR) document are to be compiled in accordance with the Index of UDS Forms and Document Outline (a common outline of standard forms) on which requirements and associated background information are entered in conformance with the instructions in this volume. This provides for standardization of requirements presentation and ensures proper interpretation and response. The information in this section is supplemented in section 3 of this volume by sample forms and instructions which will aid in preparation of the PRD/OR.

The common outline of standard forms is developed to facilitate presentation of requirements for a large, complex program as well as satisfying the documentation requirements of smaller programs. A given PRD/OR is structured within the common outline using only those standard forms that best suit the needs of the particular program or mission/test. Regardless of format, the common outline and numbering system must be followed. The common outline is organized along program management lines rather than functional lines. This creates some problems at the operational level where functional requirements are dispersed throughout the PRD/OR. The program-management-oriented outline provides maximum flexibility to differing management structures and thereby alleviates or solves most functional problems.

The outline is composed of the following six categories:

Category 1 - Program Information, Administrative and Technical

Category 2 }  
Category 3 } - Test/Mission Operational Requirements

Category 4 - Coordinate Systems/Data Processing and Disposition

Category 5 - Base Facilities/Logistics

Category 6 - Other Support

The requirements of a program or mission are included in a PI, a PRD, and an OR, or in combinations thereof as a program, mission, or test size dictate. The initial issue of each document will include those forms needed to present the requirements which are known at the time of issue. All forms shown in this volume may not be needed to complete the PRD/OR. First, emphasis should be placed on identifying those requirements which call for long-range planning action even though detailed use or implementation details may not be known. As more information becomes available, revisions will be made to the document to incorporate the additional data. The prime consideration is to ensure receipt of any requirement information by the support agency at the earliest possible date.

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## 2.2 RESPONSIBILITIES

### 2.2.1 User

The user shall:

- a. Promptly submit a basic PRD when requested by the support agency.
- b. Maintain the PRD to reflect the current needs of the program by timely revision when:
  - (1) There is a change in the program.
  - (2) Additional information becomes available.
- c. Ensure that:
  - (1) All major requirements have been submitted.
  - (2) All requirements submitted are necessary to meet the test objectives.
  - (3) Requirements are placed in the PRD sufficiently early to allow for planning, funding and construction.
- d. Determine that:
  - (1) OR documentation is submitted as prescribed by the support agency in accordance with scheduled lead times.
  - (2) OR documentation is prepared and screened to ensure that no major funding requirement which is not covered in the PI/PRD is included.
  - (3) All OR documentation has approval signatures.
- e. Make available at the time needed, items such as:
  - (1) Detailed telemetry setups.
  - (2) Telemetry calibration curves or overlays.
  - (3) User's detailed countdown.
  - (4) Photographic outlines or requirements.
  - (5) Trajectory data.
  - (6) Test schedule request.
  - (7) Range safety data as required by range safety regulations.
  - (8) Detailed flight path and/or profile for special-purpose aircraft.

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(9) Antenna patterns.

(10) Other items as may be requested by appropriate authority.

#### 2.2.2 Security

The user agency is responsible for establishing the security classification of the PRD and OR documents in accordance with current directives.

#### 2.2.3 PRD/OR Distribution List

Page 1020, Distribution List, will cite, for documents being forwarded for acceptance, the number of copies needed to meet the user's requirements.

The user will effect initial distribution of the PRD/OR within the user's organization, and thereafter all requests for additional copies will be directed to the user.

#### 2.2.4 Support Agencies

Support agencies will review the appropriate PRDs/ORs received from the user. PRD/OR acceptance by the support agency is predicated 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:

- a. Establish a suspense date for publication of the PSP/OD.
- b. Notify the various support organizations of the resulting suspense date.
- c. Publish the PRD/OR extract for other support ranges, if required.
- d. Publish and distribute the PSP/OD.

#### 2.3 DOCUMENT ORGANIZATION

The program-management-oriented outline is one of several that is implemented. It provides for general informative data to be presented in the 1000-series pages. This data covers all functional category flight hardware, equipment, facilities, and software that may contribute to a better understanding of the requirements. The requirements, per se, are presented in the 2000-series pages and are, again, functionally structured. The requirements stated in the 2000 series relate to the collection of data which may be real time, near real time, or post flight. The handling, processing, evaluation, and disposition of these data are of such importance and magnitude that the 3000 series, Real-Time Data Display and Control; 4100 series, Data Processing; and 4200 series, Data Delivery and Disposition;

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are included as separate items in the outline. In summary, the outline describes the program, mission, or test, including the test envelope to be flown, and states in discrete sections the requirements for data, and instructions for processing, delivery and disposal. Support requirements for services, base facilities and logistics which relate to all the other requirements are presented in the 5000- and 6000-series pages to round out the outline. Details of the individual page-series structure are covered by the form instructions.

As previously stated, the pages of the PRD/OR are organized according to the Index of UDS Forms and Document Outline as shown on page 1040, section 3. The forms listed for each page of the document have been designed to define details associated with the requirements statement which support agencies need to provide the requested support and to develop adequate response documentation. These forms also serve as a checklist to prevent pertinent data from being overlooked. The data entered on the forms need not be limited to the statement of requirements. Additional background material may be provided to clarify requirements and make them more understandable; however, if the background material is voluminous, a supplemental document should be considered. Some forms provide budget and management information which also supplements the actual requirements.

Specific forms used in a document are identified by placing an "X" in column 10 of UDS page 1040. The page then serves as a table of contents for that document and as a management checklist to determine that all categories of the required support have been requested.

#### 2.4 FUNCTIONAL REQUIREMENTS

An inspection of the outline shows that the structure of the requirement categories and the page series are along functional lines. The breakdown includes a redundancy that provides for the individual statement of a composite system capability. A composite system is one that meets the requirement for two or more capabilities. For example, the unified S-band system can be used for tracking, telemetry, command, and communications. The preparer of a PRD/OR may request these capabilities under composite systems or under the individual functional categories. A tracking/command control system is another example of a composite system, as defined. The requirement for such a system may be documented under Composite Systems, 2500 series, or within the other 2000-series pages. In most instances, coordination between the requesting agency and the support agency will determine the best approach.

#### 2.5 STANDARD FORMS

Standard UDS forms (size 8 x 13 inches) have been provided for entering requirements. A careful study should be made of all forms and instructions included in section 3 of this volume before compiling the PRD/OR. The form best suited to each category of information or requirement should be used. Three general-purpose forms have been provided for use in certain sections of the document as shown in the Index of UDS Forms and Document Outline. These forms may also be used to supplement the other forms when

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graphic or narrative descriptions are required. The most appropriate general-purpose form, depending upon the desired location of the item number and test code boxes, will be used. No form is to be modified. If a new or different form is required, the procedures for submission of the UDS changes must be followed.

## 2.6 FORM IDENTIFICATION

Approved UDS forms for PRD/OR use are numbered consecutively beginning with 100 (numbers 1 through 99 are reserved for PI/SC forms and any additions to them). The PRD/OR forms will be identified in the lower left margin in a manner similar to that of the PI/SC forms. The following form number assignments are used:

<u>Category</u>	<u>Page/Section Number</u>	<u>Form Numbers</u>
1	1000-1999	100-199
2	2000-2999	200-299
3	3000-3999	300-399
4	4000-4999	400-499
5	5000-5999	500-599
6	6000-6999	600-699

The forms shall be numbered consecutively as approved. The form number for PRD/OR forms will be preceded by the letter "R" to denote that it is a requirements form rather than a support form. UDS Form R 100, Approval Authority, is an example. The month and year of approval will be printed below the word "Form." The general-purpose forms are an exception. These are identified as follows:

UDS FORM R G/A

UDS FORM R G/B

UDS FORM R G/C

The letter following the slash will be assigned consecutively beginning with "A" and proceeding through the alphabet as approved.

Revisions of the forms will bear the following notation after the form number: "Replaces Form R xxx Dated xxx." The new approval date will be printed in the appropriate position.

## 2.7 FORM PREPARATION

The completed forms will be used as masters in the reproduction process leading to the final document. Data must be entered in the blocks and columns of the forms in accordance with the instructions in section 3 of this volume. Since instructions are not printed on the back of the forms, it is necessary to use this volume when preparing the forms. The symbol "N/A" will be entered in boxes or columns if the information called

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for is not applicable. If the details will be available at a later date, the originator may leave the box blank or enter an appropriate explanation as to when the information will be provided. Certain boxes on the forms have been standardized and will always have the same respective box numbers. These boxes are discussed in the following paragraphs.

a. Box 1 - Classification. The highest security classification of information appearing on a page will be placed in the center of the page at the top and bottom. If a page is unclassified, it will be so marked. A stamp having blockstyle letters at least 1/4-inch high will be used with black ink.

The highest security classification of the total document will be marked on the outside of the front cover, the first page (page 1010 or 1030), the last page, and outside of the back cover. The Unclassified marking will not be used on the covers if the document is totally unclassified.

If a page contains classified information, each portion of the page will be marked to identify the level of classification (or that it is unclassified) shown by the appropriate classification symbol placed immediately before the beginning of the information. The parenthetical symbols "(TS)", "(S)", "(C)", and "(U)" will be used. When appropriate, the symbols "(RD)" for Restricted Data, "(FRD)" for Formerly Restricted Data, and "(N)" for Critical Nuclear Weapon Design Information (CNWDI) will be used.

Classified revisions will bear the same classified document control number assigned to the original document with a dash number corresponding to the number of the document revision. That is, if the document is being revised for the third time, the dash number will be "-3." The classification of each page in the document and subsequent revisions will be shown on page 1032, as explained in the instructions for that page.

b. Box 2 - Replace Page(s). This box is left blank on the original document. When a page is revised, the number and date of the old page will be entered in this box. When a new page is added after the original document issue, the word "added" should be entered in this box. A master file, including all revisions and deletions, will be maintained by the appropriate agency to identify all changes.

c. Box 3 - Page Number. Page numbers relate to the organizational outline as shown on the Index of UDS Forms and Document Outline, page 1040. These numbers have been assigned and are controlled to the fourth digit by the DG. For the original document, the first page of a section is numbered with the four-digit number and always ends in .1 (i.e., 1370.1) whether or not additional pages follow. The next page becomes .2 and so on throughout the original document.



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As the document is revised and it becomes necessary to add pages before, between, or following a numbered sequence, the numbers for inserted pages shall be determined in accordance with the following procedure:

(1) If the page is inserted before the first page of the original series, the first inserted page will be numbered with the section number and becomes .0 (i.e., 1080.0). The next inserted page becomes 1080.0.1. This option is especially desirable when the first page of an original series contains formatted data and it becomes necessary to insert narrative data on a general purpose form preceding the original entry.

(2) If the page is inserted between two serially numbered pages (i.e., 1080.1 and 1080.2 or 1330.5 and 1330.6) additional decimals will be used, and the inserted page numbered 1080.1.1 or 1330.5.1. This process may be continued indefinitely.

(3) If the page is not inserted between two pages already serially numbered (i.e., 1080.1, 1080.2, 1080.3) but as a page at the end of a series (page 1080.3 is the last page in the series and the new page is to be added to this series), the page added at the end of the series will be numbered 1080.4.

In some cases revisions may result in the deletion of pages. In this event page numbers become discontinuous. Deleted page numbers may be used in subsequent revisions if the need arises. Reference should be made to page 1031, Revision Control, to determine which pages of the document are active. For classified documents, refer to page 1032, Security and Revision Control.

For some programs it may be desirable to make a subdivision within the basic four-digit block to reflect a further breakout in the specific systems or mission phases; for example, 421X-Prelaunch, 423X-Post Insertion. The fourth digit preceding the decimal may be used to denote systems as follows: 276X-Ground Communications - Termination, for example, 2760-Voice, 2762-Point-to-Point, and 2763-Teletype. Since control of the first four digits rests with the DG, approval of deviations in the numbering system must be obtained, after which the system must be explained on page 1060, Preface, in the applicable document.

d. Box 4 - Date. The date will indicate the appropriate document publication date or the page revision publication date.

e. Box 5 - Program Title. The document title shall be entered in this box. Examples are Space Shuttle PRD and One Hundred Launch OR. This box may also be used to enter subtitles which clarify the title of the program or document. Refer to subparagraph 2.7 (j) for subtitles which clarify the title of the form or further identify data appearing on that page.

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f. Box 6 - Program Number. The program number will be entered in this box. Program numbers are assigned prior to publication of the PRD/OR (refer to Volume 1, section 3, subparagraph 3.3a.).

g. Box 7 - Revision Number. This box will be left blank on the initial issue of the document. Each document revision is numbered sequentially, and each page of a document revision will have the corresponding number entered in this box.

h. Box 8 - Item Number. The item number box may appear in either the heading or as a column at the left margin of the form, depending upon the intended use of the form. Where it is of no value, an item number box will not appear on the form; page 1040, Index of UDS Forms and Document Outline, is an example.

The item number provides a means of identifying and locating a requirement within each organization section of the PRD/OR. Item numbers are assigned by the user, and the method must be explained on page 1063, Item Number Definition. The complete item number is limited to a total of 12 standard typewriter characters.

The following examples will serve as a guide in defining the item numbering system. Each requirement is assigned an item number in numerical order, starting with the number 1. These item numbers continue consecutively from page to page within each numbered section of the document regardless of the number of forms used in that section. When the general-purpose blank forms are used within formatted sections, item numbers continue in the same manner.

For example, if pages 1420.1 and 1420.2 are used and if each page contains six requirement items, page 1420.1 would contain items 1 through 6 and page 1420.2 would contain items 7 through 12. If items are to be inserted between existing items, for example, between 1 and 2, additional decimal numbers will be used and the item numbers of these insertions will be 1.1, 1.2, 1.3. Further insertions can also be made, for example, between items 1.1 and 1.2 and the resultants are 1.1.1 and 1.1.2. If additional items are added at the end of the list, consecutive numbering of the items is maintained (2760 pages using Form R 230, Ground Communications - Terminations, is an exception; item numbers are consecutive starting with 1 on each page). Deletion of items is permissible after submission of a document (see paragraph 2.9 in this section).

On some programs, the requirements submitted by the individual requesters must be integrated into the published documents. When duplicate requirements are submitted by different requesting agencies, the item will carry multiple item numbers in the integrated document. In the event it becomes necessary to identify the item number with a particular requester, the letter designators shown in Table 2-1 may be used as a prefix to the numerical portion of the item; for example: T1, H1, or A2.

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TABLE 2-1  
LETTER DESIGNATIONS FOR AGENCIES

A	White Sands Missile Range (WSMR)
B	Lewis Research Center (LeRC)
C	National Weather Service (NWS)
D	Department of Defense (DOD)
E	Eastern Test Range (ESMC-ETR)
F	Air Force Flight Test Center (AFFTC)
G	Goddard Space Flight Center (GSFC)
H	Marshall Space Flight Center (MSFC)
I	Langley Research Center (LaRC)
J	Jet Propulsion Laboratory (JPL)
K	Kennedy Space Center (KSC)
L	Naval Weapons Center (NWC)
M	Ames Research Center (ARC)
N	Pacific Missile Test Center (PMTTC)
O	Naval Ordnance Missile Test Facility (NOMTF)
P	Armament Division (AD)
Q	Wallops Flight Center (WFC)
R	Electronic Research and Development Agency (ERDA)
S	Air Force Satellite Control Facility (AFSCF)
T	Johnson Space Center (JSC)
U	Ballistic Missile Defense Systems Command (BMDSCOM)
V	Kwajalein Missile Range (KMR)
W	Western Test Range (WSMC-WTR)
X	Dryden Flight Research Center (DFRC)
Y	National Aeronautics and Space Administration, Headquarters (NASA)
Z	JSC White Sands Test Facility (WSTF)
AA	Air Force Special Weapons Center (AFSWC)
AB	Army Materiel Test and Evaluation (ARMTE)
AC	Utah Test and Training Range (UTTR)
AD	Yuma Proving Ground (YPG)

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TABLE 2-1 LETTER DESIGNATIONS FOR AGENCIES  
(CONTINUED)

AE	Atlantic Fleet Weapons Training Facility (AFWTF)
AF	Tactical Fighter Weapons Center (TFWC)
AG	Naval Air Test Center (NATC)
AH	Air Force Technical Evaluation Center (AFTEC)
AJ	Pacific Missile Range Facility (PMRF)

Letter designators may be used as a suffix to the item number. Programs requiring multiple support agencies may use letter designators as a suffix to identify the item number with a particular support agency responsible for providing the support/response.

The nature of a specific program, mission, or test will dictate the required item number criteria discussed above. The appropriate item number is entered in Box 8 as described in the preparation instructions for page 1063, Item Number Definition.

i. Box 9 - Test Code. Test code designators are used to identify the various activities that occur during the course of a program, mission, or test. Examples of test activities which might be assigned as a separate test code are: launch, dry run, static firing, simulated flight, instrumentation tests, and recoveries. The test code will correlate the support requested and the test series activity involved. Thus, any support requirement referenced to the test code indicates this support will be required during a particular program activity, mission, or test.

The test code box may appear in either the heading or as a column at the left margin of the form depending upon the intended use of the form. Where it is of no value, the form will not contain a test code box; page 1030, Revision Approval, is an example.

The test code consists of a test code letter (A, B, C, etc.) for each portion of the test program which has similar support requirements. This apportionment might separate test series, development phases of the program, time periods within the program, variations in equipment being utilized, or any other meaningful breakout of the program with regard to support requirements. Double letters may be used to further break down the single test code, for example, AA, AB, or AC, within A.

Each test code used in the document must be described on page 1062, Test Code Definition. Refer to this page in section 3 of this volume for further explanation of the test code definition.

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j. Page Title. This unnumbered box has a preprinted title on most standard forms with the exception of the four general-purpose forms and some forms with a common format. This preprinted title corresponds with the form title given in column 13 of page 1040, Index of UDS Forms and Document Outline. When the blank general-purpose forms or common-format forms are used in the document, the proper title for the appropriate page number must be taken from the Index of UDS Forms and Document Outline and entered in the blank title box. When it becomes necessary to further identify the main form title or categorize data appearing on a particular page, an entry may be made in the title box for this purpose. For example, the same form entitled "Ground Communications - Network Transmission Requirements" is used in sections 2730 to 2739. To identify the data breakout on the individual pages, the words teletype, voice, high-speed data, television, or facsimile are added in parentheses as applicable in the title box following the page title. When this breakout is mandatory, the instructions for the particular form will give the titles to be used.

k. Remarks. A numbered box or column has been provided for remarks on many of the forms. This box appears either on the right side or along the bottom of the form. Care must be exercised by the originator to ensure proper correlation between the remarks and the item numbers to which they pertain. This may be accomplished by properly spacing the remarks in relation to the item, or by coding the item with letters or numerals to the pertinent remark.

l. Requirements. Requirements are entered in the designated boxes of the form in accordance with the instructions provided in section 3 of this volume.

## 2.8 REFERENCES

Sources of information which supplement the requirements listed in the PRD/OR may be referenced on page 1065, Technical References; however, the basic requirement must be stated within the appropriate section of the document.

Some data cannot be included directly in the documents. Antenna patterns and trajectory tapes are examples of the data in this category. These must be submitted in accordance with applicable agency directives. Refer to subparagraph 2.2.1e in this section for examples of such items. Be certain the requirement is stated in the PRD/OR, and the date and agency to whom the data is submitted is entered on the appropriate forms where the requirement is entered.

## 2.9 REVISIONS

A revision shall be considered as any change, deletion, or addition to the originally issued document or to a previous revision of it. Individual items are revised by making the necessary change, deletion, or addition to the data and by submitting a replacement page for inclusion in the next document revision. Where the change is extensive, entire pages may be deleted or added as required.

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A revision to an existing document will be prepared on the appropriate forms. Wherever a change has been made to the contents of an original page, an "R" will be placed in the right margin of the page opposite the change or paragraph/item number. When sufficient data on a page has been changed which would require the entire page to be carefully reviewed, an "R" will be placed in the right margin opposite the page number in lieu of placing an "R" opposite each change. In a subsequent revision to the page, an "R" applicable to a preceding revision will be deleted. An optional procedure utilizing a "margin bar" may be used to identify changes in lieu of placing an "R" opposite the change. The margin bar (vertical line) is placed in the right margin of the page to indicate the inclusive portions of the page which contain a change (example shown in right margin).

Page 1030, Revision Approval, will be prepared according to instructions and will be forwarded with the revised page or pages. The number of the revision will be entered in Box 7 ("Revision No.") of each page, and Box 2 ("Replaces Page(s)") will be properly completed. When a revision to a page deletes a requirement, the word "deleted" will be inserted in place of the deleted requirement. The item number will be retained, and the "R" will be placed as previously described. Page 1032 may be used for classified and unclassified documents. Page 1031 may be used for unclassified documents only. These pages will be reissued as applicable with each revision to provide an accurate inventory of all active pages and the revision date of each.

Revision schedules will depend upon the scope of the program, mission, or test and will be agreed upon by the requester and the agency providing the support.

A typewritten "Expedite OR Revision" may be prepared if expeditious support is required when the processing and publication of a routine OR revision seriously delays a program or test. The revision is prepared in letter format (following UDS outline) and is expedited to the support agency for processing. Some programs may require a special "Expedite Operations Requirement" (EOR) procedure for processing interagency expedite requirements and responses. A normal OR revision will be prepared in accordance with the previous paragraphs in this section and will be submitted in compliance with the previously agreed upon revision schedule.

## 2.10 PREPARATION OF EXTRACTS AND ESTIMATES

Estimates are prepared upon request of the support agency when requirements are such that planning support must be accomplished before authorization to acquire the capability is given. The extract documents 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. This relates to the lead support agency concept where one agency is given overall support responsibility when the total support involves a number of agencies.

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#### 2.10.1 Estimates

The Program Requirements Estimate (PRE) is prepared in accordance with the instructions in previous paragraphs in this section. The PRE is submitted on the PRD/OR forms and is used for planning purposes only. It is an introductory document similar to the PRD and fulfills the function of the PRD until acquisition of resources by the support agency is authorized. At this time the appropriate support agency determines the adequacy of the PRE as a PRD and takes the necessary steps to give it PRD status and nomenclature.

#### 2.10.2 Extracts

The following documents are prepared in accordance with the instructions in previous paragraphs in this section:

a. Program Requirements Document Extract (PRDE) - The PRDE becomes a necessary document when requirements placed on one agency create additional (derivative) requirements that must be levied on other agencies. This occurs when it is not appropriate to levy the original PRD on these other agencies. The derivative requirements are prepared on PRD forms in accordance with the standard UDS outline.

b. Operations Requirements Extract (ORE) - The ORE is identical to the PRDE except it applies to the OR and mission/test level as opposed to the program level. It relates to the lead support agency concept where the lead support agency must levy derivative requirements on other agencies. In general, basic requirements will be extracted from the user's original OR and expanded upon by the lead support agency.

#### 2.11 REPRODUCTION .

All forms must be prepared in accordance with the instructions in the following paragraphs to ensure satisfactory reproduction. Care must be taken during typing, proofreading, handling, and storage of the forms to prevent smudges in the image area, since any undesirable marks on the original will appear on the reproduction.

Typing - The forms have been designed for use with a 12-character-per-inch typewriter. Typewriters that use either black-ink fabric or carbon-surfaced tape ribbons of either paper or plastic base are suitable for preparation of the masters. The fabric ribbon should not be used to the point of exhaustion of the ink because the legibility of the reproduced document is dependent upon the intensity and sharpness of the original typed character. Carbon-surfaced ribbons are preferred since they are only typed upon once and thus enhance the sharpness and uniformity of the typed characters.

Writing Fluid and Writing Implements - Black ink should be used for writing, lettering, drawing and ruling. Ball or nib points may be used;

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however, a draftsman's pen should be used for ruling lines. A brush may be used for filling in solid areas.

Pencil - Black pencil may be used in place of pen and ink. Slightly heavier-than-normal pressure should be used so that good reproduction will result. Guidelines, correctional notes, or instructions made during proof-reading and review should be made with a blue nonreproducible pencil only, using less-than-normal pressure. Because such a pencil will not reproduce, erasures are not necessary. Other types of pencils must not be used for the above purposes because their marks will reproduce.

Stamping - Use a pad that has been impregnated with black ink only. Press the stamp on the forms with a slight rolling motion to give a sharper image. Reproducing (offset) ink is not required.

Tracing - Diagrams and sketches should be traced onto the master using fresh carbon paper and a ballpoint pen, hard pencil, or stylus. Used carbon paper may result in unevenness and skips. Tracings should be "fixed" with a light application of plastic spray to prevent smudging.

Paste-Ups - Drawings and figures of suitable size may be fastened to the form with rubber cement or clear plastic tape. This method may be more desirable than tracing, provided all data on the original is sufficiently legible for reproduction. When using tape, be sure it does not cover the image.

Erasures or Corrections - Erasures and corrections may be made on the forms with a soft rubber eraser. A few strokes of the eraser are usually enough to remove the unwanted image. A faint "ghost" image remaining after an erasure will not reproduce.

Data may also be erased and corrected on the form by the use of white, fast-drying, opaque substances such as Snopake or equivalent. These solutions should be thinned properly to provide a smooth surface suitable for typing. Corrective tape may also be used. These methods are preferred to rubber erasers which frequently smear the image or destroy the paper surface.



Date: 11-79

## SECTION 3

### PRD/OR FORMS AND INSTRUCTIONS

#### 3.1 GENERAL

This section contains a sample of each approved form and its preparation instructions.

#### 3.2 ORGANIZATION

The sample forms have been organized in accordance with the approved UDS outline.

#### 3.3 PURPOSE

The following pages are to be used as a guide in preparing the documents. The data entered on the forms will vary in accordance with requirements for a particular program, and the manner in which the data is entered must remain flexible. The important consideration in completing the forms is to follow the instructions provided and to present the requirements in a clear, concise manner.

#### 3.4 CROSS REFERENCE INDEX

Table 3-1 provides a cross reference index to assist in locating the numbered forms used in this section.

Date: 11-79

TABLE 3-1  
PRD/OR  
FORM AND PAGE CROSS REFERENCE INDEX\*

<u>Form No.</u>	<u>Page No.</u>	<u>Title</u>
R G/A	**	(Refer to Index of UDS Forms and Document Outline, Form R 105, for titles and page numbers.)
R G/B	**	
R G/C	**	
R 100	1010	-Approval Authority
R 101	1020	-Distribution List
R 102	1030	-Revision Approval
R 103	1031	-Revision Control
R 104	1032	-Security and Revision Control
R 105 (five parts)	1040	-Index of UDS Forms and Document Outline
R 106	1050	-Program/Mission Security Information
R 107	1052	-System Security Classification
R 108	1054	-System Security Classification Matrix
R 109	1056	-Security Authorization
R 110	1061	-Special Abbreviations and Nomenclature
R 111	1064	-Key Technical Personnel
R 112	1065	-Technical References
R 113	1120	-System Mission Capabilities
R 114	1125	-System Functional Description
R 115	1131	-Mission/Test Objectives
R 116	1140	-Test Program Operations Schedule
R 117	1311	-Launch Vehicle - Characteristics
R 117	1321	-Spacecraft/Payload - Characteristics
R 118 (two parts)	1313	-Launch Vehicle - Ordnance Items Description
R 118 (two parts)	1323	-Spacecraft/Payload - Ordnance Items Description

\* This index is not a complete outline of the UDS. Refer to Form R 105 for the complete document outline and titles.

\*\* These forms are located at the end of section 3.

Date: 11-79

TABLE 3-1 (Con.)  
PRD/OR  
FORM AND PAGE CROSS REFERENCE INDEX

<u>Form No.</u>	<u>Page No.</u>	<u>Title</u>
R 119	1315	-Launch Vehicle - Flame Plasma Model of the Exhaust Plume
R 119	1325	-Spacecraft/Payload - Flame Plasma Model of the Exhaust Plume
R 120	1405	-Frequency Utilization Summary
R 121 (two parts)	1411	-Vehicle Metric Tracking Systems - Transponder Characteristics
R 122 (two parts)	1421	-Vehicle Telemetry Systems - Characteristics
R 123	1424	-Vehicle Telemetry Systems - Analog Channel Description
R 124	1426	-Vehicle Telemetry Systems - Data Recorder Characteristics
R 124	1457	-Vehicle Composite Systems - Data Recorder Characteristics
R 125 (two parts)	1431	-Vehicle Command Systems - Characteristics
R 126	1441	-Vehicle Voice Communications Systems - Characteristics
R 127	1451	-Vehicle Composite Systems - Characteristics
R 128	1452	-Vehicle Composite Systems - Received Data Characteristics
R 129	1453	-Vehicle Composite Systems - Transmitted Data Characteristics
R 130	1456	-Vehicle Composite Systems - Operating Modes
R 131	1461	-Launch Vehicle Television Systems - Characteristics
R 131	1466	-Spacecraft/Payload Television Systems - Characteristics

Date: 11-79

TABLE 3-1 (Con.)  
PRD/OR  
FORM AND PAGE CROSS REFERENCE INDEX

<u>Form No.</u>	<u>Page No.</u>	<u>Title</u>
R 132	1463	-Launch Vehicle Television Systems - Format Description
R 132	1468	-Spacecraft/Payload Television Systems - Format Description
R 133	1470	-Recovery Location Aids
R 134	1480	-Vehicle Systems - Other
R 135	1510	-Requesting Agency's Instrumentation - Characteristics
R 136	1610	-Prelaunch Test - Identification
R 137	1620	-Prelaunch Test - Sequence
R 138	1630	-Terminal Countdown
R 139	1700	-Test Envelope Information - General
R 140	1710	-Major Mission Events - Launch Phase
R 141	1711	-Major Mission Events - Flight
R 142	1712	-Space Maneuver - Application of Thrust
R 143	1721	-Trajectory Data - Profile Views
R 144	1722	-Trajectory Data - Launch
R 145	1723	-Trajectory Data - Orbital and Space
R 146	1724	-Trajectory Data - Terminal
R 147	1810	-Operational Hazards - Reports
R 200	2010	-Ground Support Instrumentation Summary
R 209	2110	-Metric Data - Launch
R 209	2111	-Metric Data - Midcourse
R 209	2112	-Metric Data - Orbital and Space
R 209	2113	-Metric Data - (blank)
R 209	2114	-Metric Data - Terminal
R 209	2115	-Metric Data - Signature
R 210	2120	-Metric Data - Parameter Recordings
R 211	2160	-Metric Data - Coverage

Date: 11-79

TABLE 3-1 (Con.)  
PRD/OR  
FORM AND PAGE CROSS REFERENCE INDEX

<u>Form No.</u>	<u>Page No.</u>	<u>Title</u>
R 212	2170	-Metric Data - Engineering Sequential
R 213	2210	-Telemetry - Recording Interval
R 214	2220	-Telemetry - Analog Strip Chart Recording Format
R 215	2230	-Telemetry - Event Recording Format
R 216	2240	-Telemetry - Decommutation Processing Specifications
R 217	2260	-Telemetry - Coverage
R 218	2310	-Command - Control
R 221	2360	-Command - Up-Data Link Stations Coverage
R 222	2410	-Air/Ground Voice Communications - Recording
R 222	2770	-Ground Communications - Recording
R 223	2460	-Air/Ground Voice Communications - Coverage
R 224	2520	-Composite Systems - Parameter Recordings
R 225	2560	-Composite Systems - Coverage
R 225	2660	-Other Systems - Coverage
R 226	2605	-Other Systems - Support Instrumentation
R 227	2710	-Ground Communications - Detail
R 228	2730	-Ground Communications - Network Transmission
R 229	2740	-Ground Communications - Intercommunications Systems
R 230	2760	-Ground Communications - Terminations
R 231	2780	-Ground Communications - Telephone
R 232	2805	-Television
R 233	2810	-Timing
R 234	2820	-Sequencer
R 235	2830	-Visual Countdown and Status Indicators
R 300	3031	-Real Time - Displays
R 301	3032	-Real Time - Console Command Panels

Date: 11-79

TABLE 3-1 (Con.)  
PRD/OR  
FORM AND PAGE CROSS REFERENCE INDEX

<u>Form No.</u>	<u>Page No.</u>	<u>Title</u>
R 302	3033	-Real Time - Console Analog Recorders
R 305	3043	-Real Time - Telemetry Data Formats - Detail
R 306	3061	-Real Time - Data Interface Criteria
R 307	3110	-Photographic - Detail
R 308	3220	-Meteorological - Forecasts
R 309	3230	-Meteorological - Observations
R 310	3250	-Meteorological - Space Environment
R 311	3310	-Recovery - Ships and Aircraft Coverage
R 312	3320	-Recovery - Items To Be Recovered
R 313	3330	-Recovery - Salvage and Disposition
R 314	3340	-Recovery - Planned Areas
R 314	3350	-Recovery - Contingency Areas
R 315	3360	-Recovery - Abort Areas
R 316	3410	-Other Technical Support - Aircraft
R 317	3411	-Other Technical Support - Seacraft
R 318	3420	-Other Technical Support - Targets
R 319	3430	-Summary of Frequency Use/Protection
R 320	3440	-Geodetic and Gravitational Data
R 321	3450	-Other Technical Support - Training
R 322	3505	-Medical - Bioscience
R 323	3510	-Medical - Personnel - Active
R 324	3520	-Medical - Personnel - Standby
R 325	3610	-Public Affairs Services - Personnel Assignments
R 326	3620	-Public Affairs Services - News Media Personnel Positions
R 400	4110	-Data Computer Processing Specifications - Detail

Date: 11-79

TABLE 3-1 (Con.)  
PRD/OR  
FORM AND PAGE CROSS REFERENCE INDEX

<u>Form No.</u>	<u>Page No.</u>	<u>Title</u>
R 401	4160	-Data Processing
R 403	4205	-Data Reports
R 404	4210	-Data Disposition - Detail
R 500	5110	-Personnel Assignment Schedules - Detail
R 501	5120	-Personnel Assignment Schedules - Housing
R 502	5210	-Surface Logistics Schedule
R 502	5220	-Air Logistics Schedule
R 503	5300	-Services - General
R 504	5310	-Services - Propellants, Gases and Chemicals
R 504	5320	-Services - Aircraft and Ground Vehicle Fuels
R 504	5330	-Services - Miscellaneous Lubricants, Hydraulic Fluids, Preservatives, etc.
R 505	5340	-Services - Vehicles and Ground Handling Equipment
R 506	5350	-Services - Requesting Agency Aircraft
R 507	5360	-Services - Seacraft
R 508	5370	-Services - Chemical Cleaning
R 509	5380	-Services - Local Purchase or Base Funded Items
R 510	5410	-Chemical and Physical Analysis
R 511	5600	-Facilities - General
R 512	5610	-Facilities - Drawings
R 513	5620	-Facilities - Launcher and Platform Characteristics
R 600	6010	-Test Instrument Maintenance and Calibration
R 601	6020	-Requirements for Support Agencies

Date: 7-70

1. CLASSIFICATION		2. REPLACES PAGE (S)		3. PAGE NO. 1000	
(PAGE TITLE) ADMINISTRATIVE - GENERAL		4. DATE		5. DATE	
6. PROGRAM TITLE		7. PROGRAM NO.		8. REVISION NO.	
9. ITEM NO.	10. TEST CODE	11. DESCRIPTION *			

DD FORM 1000  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1000—ADMINISTRATIVE - GENERAL

NOTE: This form is used to enter any administrative information of a general nature pertaining to the program or mission.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Enter any administrative information that will help clarify the submission of requirements or documentation procedures for the program or individual missions. Do not include detailed information provided on Pages 1010 through 1099.



Date: 11-79

1. CLASSIFICATION				2. REPLACES PAGE(S)		3. PAGE NO. 1010	
(PAGE TITLE) APPROVAL AUTHORITY				DATE		4. DATE	
5. PROGRAM TITLE		6. ITEM NO.		7. TEST CODE		8. PROGRAM NO.	
9. PRECEDENCE RATING		10. PRIORITY		11. INITIATION DATE		12. COMP. DATE	
13. AUTHORITY (REFERENCES)		14. Sponsoring Agency		15. BASIC CONTRACT NO.			
17. NOTES							
18. APPROVAL		19. APPROVAL		20. APPROVAL		21. SUPPORT AGENCY	
DATE		DATE		DATE		DATE	
22. APPROVAL		23. APPROVAL		24. SUPPORT AGENCY		25. SUPPORT AGENCY	
DATE		DATE		DATE		DATE	

UDS FORM R 100  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1010 - APPROVAL AUTHORITY

**NOTE:** This form is used as an authorization, granted by Requesting Agencies to the Support Agencies for the conduct of operations relevant to the successful accomplishment of a program, mission, or test. The authorization indicates that the information contained in this document is the official User requirements for support of a given program. It serves as an acceptance of the document by the Support Agencies in recognition of the requirements contained therein.

- BOX 1 CLASSIFICATION:** The highest security classification of information appearing on a page will be placed in the center of the page at the top and bottom. If a page is unclassified it will be so marked. A stamp having blockstyle letters at least 1/4-inch high will be used with black ink.
- BOX 2 REPLACES PAGE(S):** Leave this box blank in the original issue of the document. If an existing page is replaced due to a revision, enter the page number and date of the page being replaced. If a new page is added, enter the word "Added."
- BOX 3 PAGE NO.:** Pages will be numbered to be consistent with the section of the document in which they are used. Decimal numbers will be used when more than one sheet of a basic form is required. This system has been established to identify the page and associated data with a particular section of this requirements document. The numbering system allows the document to be completely open-ended and flexible for the insertion of new and additional pages. If additional pages have to be inserted at any time, a page number will be established by adding, after a decimal point, consecutive decimal numbers to the basic page number. This method will be followed in order to maintain the desired sequence of subject matter and to keep in ascending order of page numbers.
- BOX 4 DATE:** Enter the date on which the document or a revision will be issued.
- BOX 5 PROGRAM TITLE:** Enter the program or document title and, if necessary, a subtitle that further identifies the program or document. A subtitle, if necessary, used to further identify the main form title or categorize data appearing on the page will be entered in the Page Title box in parentheses following the page title.
- BOX 6 PROGRAM NO.:** This number will be assigned to the program and be provided by DOD or the lead Support Agency. See UDS, Volume 1, Document Implementation, for PI/PRD number assignment.
- BOX 7 REVISION NO.:** This box is used only when a form is published as a part of a revision to the document and, as such, will reflect the document revision number of which the form is a part.

- BOX 8 ITEM NO.:** If appropriate, enter the item number in this space. The item number is used to identify each Requesting Agency entry. An explanation of the basic elements, the method of constructing the number, and item number letter designators to be assigned by the Sponsoring Agency (Box 14) will be explained and identified on page 1063, Item Number Definition.
- BOX 9 TEST CODE:** Test codes will identify the various test activities during the course of the program. These test codes will be used as a method of correlating support requirements to the test activity involved, such that any support requirement referenced to a test code indicates that this support will be required during that particular test program activity. Test codes will be identified and explained on page 1062, Test Code Definition.
- BOX 10 PRECEDENCE RATING:** Enter the applicable precedence rating that is assigned to the program.
- BOX 11 PRIORITY:** Enter the priority of the program, mission, or test.
- BOX 12 INITIATION DATE:** Indicate the date when support is first required. Dates for special facilities or unique instrumentation, etc., should be entered in Notes (Box 17).
- BOX 13 COMP. DATE:** Indicate the date when the program, mission, or test is planned to be completed or when it no longer requires support.
- BOX 14 SPONSORING AGENCY:** Enter the military or governmental organization which has cognizance and prime responsibility for the program.
- BOX 15 BASIC CONTRACT NO.:** Enter the basic contract number for the program, where applicable.
- BOX 16 AUTHORITY (REFERENCES):** List the basic document which constitutes authority for conduct of the program.
- BOX 17 NOTES:** Enter the reason for security classification, special handling requirement, etc. List other contractors and their respective contract numbers when necessary. Enter, if necessary, general information pertinent to the applicability, authorization, etc., of the document.
- BOX 18-22 APPROVAL:** Use these blocks for approval by the Requesting Agencies of the needs submitted. Type in the name, rank (if applicable), title and date, leaving space for signature.
- BOX 23-25 SUPPORT AGENCY:** These blocks will be completed by the Support Agency. Type in the name, rank (if applicable), title of the accepting officials and date, leaving space for signature. Acceptance by the Support Agency does not constitute a commitment to support.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) <b>DISTRIBUTION LIST</b>			1. REPLACES PAGE (S) DATED	3. PAGE NO. 1020
5. PROGRAM TITLE			6. PROGRAM NO.	7. REVISION NO.
10. NO. OF COPIES	11. OFFICE SYMBOL	12. ADDRESSEE	13. ADDRESS	

UOS FORM R 101  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 1020—DISTRIBUTION LIST**

**NOTE:** This form is used as a distribution list for new documents and for subsequent revisions.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **NO. COPIES:** List the number of copies, original or revised, for distribution to each recipient.

**BOX 11** **OFFICE SYMBOL:** List the office symbol, if applicable, of each office requesting copies.

**BOX 12** **ADDRESSEE:** Enter the name of the individual or title of the office which is to receive the copies.

**BOX 13** **ADDRESS:** Enter the address and telephone number of the addressee. Include Post Office Zip Code.

Date: 7-70

1. CLASSIFICATION _____		2. REPLACES PAGE (S)		3. PAGE NO. 1030
(PAGE TITLE) REVISION APPROVAL		DATED		4. DATE
5. PROGRAM TITLE	6. ITEM NO.	8. PROGRAM NO.	7. REVISION NO.	
10. REVISION NOTES				
11. SIGNATURE	12. SIGNATURE	13. SIGNATURE	14. SIGNATURE	
DATE	DATE	DATE	DATE	
15. SIGNATURE	16. SIGNATURE	17. SIGNATURE	18. SIGNATURE	
DATE	DATE	DATE	DATE	

UDS FORM R 102  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1030—REVISION APPROVAL

**NOTE:** This form is used as an approval authority cover sheet for each published revision to the document. The authorization indicates that the information contained in the revision levies the official Requesting Agencies requirements to support a given program, mission and/or test.

It also serves as an acceptance of the document revision by the Support Agencies in recognition of the requirements contained therein. Acceptance by the Support Agency does not constitute a commitment to provide support.

**BOX 1-8** Follow instructions for Page 1010.

**BOX 10** **REVISION NOTES:** Enter any explanatory notes which will summarize the gross nature of the revision package. This block may be used to indicate major changes, additions, or deletions to the revision package. Information concerning revision schedules may be entered in this block.

**BOX 11-18 SIGNATURE:** Use these blocks for approval and acceptance of the document revision. Type in the name, rank (if applicable), title and date, leaving space for signature.

**NOTE:** If desired, all Revision Approval pages may be retained in the documents to provide an historical record of all changes from Revision 1 to the current revision number.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

[illegible]

UDS FORM R 103  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

## Preparation Instructions: PAGE 1031-REVISION CONTROL

NOTE: This form is used as a means of revision control for each page of an unclassified document. Classified pages need not be included in the basic unclassified document; however, a duplicate form will appear in the basic document where the classified page would appear were it not classified. This page will contain no classified information but it will reference the classified document. In such cases when only a limited number of classified pages are necessary and the classified pages are included in a classified addendum to the basic unclassified document, both Pages 1031 and 1032 will be used. Page 1031 will be used for the unclassified portion and Page 1032 for the classified addendum.

All revisions, both classified and unclassified, will require Page 1030 to indicate approval of the revision.

**BOX 1-6 Follow instructions for Page 1010.**

REVISION/ Enter the revision number and date on which the revision is  
DATE: issued in the applicable boxes. These boxes will be left  
blank when the original document is issued.

**PAGE AND** When preparing the original document, list the page numbers  
**REV:** in the columns provided. Leave sufficient space vertically  
between the page numbers to enter additional pages that may  
be added by later revisions. Opposite each page number,  
enter an "O" in the Rev. column to indicate the page is an  
original. When the document is revised, indicate the pages  
that have been revised by deleting the "O" and entering the  
proper revision number. If a page is deleted by the revision,  
the letter "D" precedes the revision number. A central  
history file must be maintained to determine the exact history  
of each page in the previous revisions.

Date: 11-79

## 1. CLASSIFICATION

(PAGE TITLE) <b>SECURITY AND REVISION CONTROL</b>										2. REPLACES PAGE(S) DATED										3. PAGE NO. 1032																			
5. PROGRAM TITLE										8. ITEM NO.										6. PROGRAM NO.										4. DATE									
10. ORIGINAL DOCUMENT										11. REV. DATE										10. ORIGINAL DOCUMENT										11. REV. DATE									
A. PAGE										B. CLASS										A. PAGE										B. CLASS									
12. APPROVAL										13. APPROVAL										14. SUPPORT AGENCY APPROVAL										15. SUPPORT AGENCY APPROVAL									
DATE										DATE										DATE										DATE									

UDS FORM R 104      REPLACES FORM R 104 DATED JUL 70  
NOV 79

### 3. CLASSIFICATION

Preparation Instructions: PAGE 1032 - SECURITY AND REVISION CONTROL

**NOTE:** This form is used as a means of revision control for each page of a classified document. Classified pages used not be included in the basic unclassified document; however, a duplicate form will appear where it not classified. This page will contain no classified information, but it will reference the classified document. In such cases when only a limited number of classified pages are necessary and the classified pages are included in a classified addendum to the basic unclassified document, both pages 1031 and 1032 will be used. Page 1031, Revision Control, will be used for the unclassified portion and page 1032 for the classified addendum.

Page 1032 is mandatory for control of classified documents and classified addendums, but may be used for unclassified documents upon agreement between the Requesting Agency and Support Agency.

All revisions, both classified and unclassified, will require page 1030, Revision Approval, to indicate approval of the revision.

80X 1-8 Follow instructions for page 1010.

BOX 10 ORIGINAL DOCUMENT:

**Box A. PAGE:** List all pages used in the preparation of the original document. When revising the document and pages are added, enter on the next available line after the last entry "PAGES ADDED TO ORIGINAL." Then list the added pages.

**Box 8. CLASS:** Enter the declassification date, e.g., 0-98, or review date, e.g., R-99, of each page shown in Box 10A.

TS - TOP SECRET, S - SECRET, C - CONFIDENTIAL,  
U - UNCLASSIFIED, F - FOR OFFICIAL USE ONLY,  
O - Deleted.  
RD - RESTRICTED DATA  
FRD - FORMERLY RESTRICTED DATA  
N - CRITICAL NUCLEAR WEAPON DESIGN INFORMATION

BOX 11 REV. DATE: In this box, on line with Box 10A page number, show "R" for revision, "A" for added, and "D" for deleted. If no change is made for that particular revision leave blank. This box shows what happens in a particular revision and a history of when and where a page change is made in terms of R, A, or D. If a page is deleted in a particular revision and is added later, history is then shown plus the status for the latest revision.

BOX :2-15 APPROVAL:

ORIGINAL DOCUMENT: Leave blank. Signatures appear on page 1010, Approval Authority.

Date: 11-79

1. CLASSIFICATION

(PAGE TITLE) INDEX OF UDS FORMS AND DOCUMENT OUTLINE				2. REPLACES PAGE(S) DATED				3. PAGE NO. 1040 4. DATE			
5. PROGRAM TITLE				6. PROGRAM NO.				7. REVISION NO.			
10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE
			<u>CATEGORY I</u> <u>PROGRAM INFORMATION</u> <u>ADMINISTRATIVE AND</u> <u>TECHNICAL</u> <u>PAGES 1000 TO 1999</u>				<u>PROGRAM/MISSION</u> <u>INFORMATION</u> <u>(CONTINUED)</u>				<u>VEHICLE (SYSTEM)</u> <u>INSTRUMENTATION</u>
			<u>ADMINISTRATIVE</u>								
R G/	1000		ADMINISTRATIVE - GENERAL		R113	1120	SYSTEM MISSION CAPABILITIES	R G/	1400		VEHICLE INSTRUMENTATION
R100	1010		APPROVAL AUTHORITY		R114	1125	SYSTEM FUNCTIONAL DESCRIPTION	R120	1405		SYSTEMS - GENERAL
R101	1020		DISTRIBUTION LIST		R G/	1130	MISSION/TEST DESCRIPTION				FREQUENCY UTILIZATION
R102	1030		REVISION APPROVAL		R115	1131	MISSION/TEST OBJECTIVES				SUMMARY
R103	1031		REVISION CONTROL		R116	1140	TEST PROGRAM OPERATIONS				VEHICLE METRIC TRACKING
R104	1032		SECURITY AND REVISION CONTROL				SCHEDULE				SYSTEMS
R105	1040		INDEX OF UDS FORMS AND				VEHICLE AND PAYLOAD	R G/	1410		- OPERATING DESCRIPTION
			DOCUMENT OUTLINE				(SYSTEM) INFORMATION	R121	1411		- TRANSPONDER CHARACTERISTICS
R106	1050		PROGRAM/MISSION SECURITY		R G/	1300		R G/	1412		- ANTENNA SYSTEMS
			INFORMATION					R G/	1413		- DIAGRAM
R107	1052		SYSTEM SECURITY CLASSIFICATION				SPACE VEHICLE DESCRIPTION	R G/	1420		VEHICLE TELEMETRY SYSTEMS
R108	1054		SYSTEM SECURITY CLASSIFICATION				- GENERAL	R122	1421		- OPERATING DESCRIPTION
			MATRIX		R G/	1310	LAUNCH VEHICLE	R123	1422		- CHARACTERISTICS
R109	1056		SECURITY AUTHORIZATION		R117	1311	- DESCRIPTION	R G/	1423		- ANTENNA SYSTEMS
R G/	1060		PREFACE		R G/	1312	- CHARACTERISTICS	R G/	1424		- DIAGRAM
R110	1061		SPECIAL ABBREVIATIONS AND		R118	1313	- ORDNANCE ITEMS DESCRIPTION	R124	1425		ANALOG CHANNEL DESCRIPTION
			NOMENCLATURE		R G/	1314	- ORDNANCE ITEMS DRAWING	R G/	1426		DIGITAL FORMAT
R G/	1062		TEST CODE DEFINITION		R119	1315	- FLAME PLASMA MODEL OF THE				DATA RECORDER
R G/	1063		ITEM NUMBER DEFINITION				EXHAUST PLUME	R G/	1430		VEHICLE COMMAND SYSTEMS
R111	1064		KEY TECHNICAL PERSONNEL		R G/	1320	SPACECRAFT/PAYLOAD	R125	1431		- OPERATING DESCRIPTION
R112	1065		TECHNICAL REFERENCES		R117	1321	- DESCRIPTION	R G/	1432		- CHARACTERISTICS
			PROGRAM/MISSION		R G/	1322	- CHARACTERISTICS	R G/	1433		ANTENNA SYSTEMS
			INFORMATION		R118	1323	- DRAWING				VEHICLE VOICE COMMUNICATIONS
R G/	1100		PROGRAM DESCRIPTION		R119	1324	- ORDNANCE ITEMS DESCRIPTION	R G/	1440		SYSTEMS
			- GENERAL				- ORDNANCE ITEMS DRAWING	R126	1441		- OPERATING DESCRIPTION
R G/	1110		EXPERIMENTS DESCRIPTION				- FLAME PLASMA MODEL OF THE	R G/	1442		- CHARACTERISTICS
							EXHAUST PLUME	R G/	1443		ANTENNA SYSTEMS
											- DIAGRAM

PART I  
UDS FORM R 105 REPLACES FORM R 105 DATED JUL 70  
NOV 79

1. CLASSIFICATION

Preparation Instructions: PAGE 1040 - INDEX OF UDS FORMS AND DOCUMENT OUTLINE

**NOTE:** This form is used to present the PRD/OR Index of Forms and Document Outline by form number, page number and appropriate title. This list is pre-printed for reference, but when Box 10 is properly completed, an "X" in that column indicates which pages of the document are active. Thus, all forms may or may not be included in the final document, and this form then serves as an outline of contents for the active pages used in the document.

BOX 1-9 Follow instructions for page 1010.

BOX 10 USED: Enter an "X" opposite those pages or series of pages used in this document.

BOX 11 FORM NO.: The form number for the corresponding page listed in box 12 is preprinted on this form. Form numbers with an "R" prefix are used only in the PRD/OR documents. Where there is no form number listed, this indicates the form is not used in the PRD/OR, but it will be used in the PSP. When the designator R G/ appears, this indicates any one of the three General Forms R G/A, R G/B, or R G/C may be used.

BOX 12 PAGE NO.: The page number, determined by the established document numerical outline, is preprinted in this column.

BOX 13 TITLE: The appropriate title for the forms and page numbers listed in Boxes 11 and 12 are preprinted for reference. Refer to the instructions for preparation of forms for details concerning entry of titles on the general and multipurpose forms.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) INDEX OF UDS FORMS AND DOCUMENT OUTLINE				2. REPLACES PAGE(S) DATED _____				3. PAGE NO. 1040			
5. PROGRAM TITLE				6. PROGRAM NO.				7. REVISION NO.			
10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE
			VEHICLE (SYSTEM) INSTRUMENTATION (CONTINUED)				REQUESTING AGENCY'S SUPPORT INSTRUMENTATION/EQUIPMENT				OPERATIONAL HAZARDS
			VEHICLE COMPOSITE SYSTEMS				REQUESTING AGENCY'S INSTRUMENTATION				- OPERATIONAL HAZARDS - GENERAL
	R G/	1450	- OPERATING DESCRIPTION		R G/	1500	- GENERAL		R G/	1800	- OPERATIONAL HAZARDS - REPORTS
	R127	1451	- CHARACTERISTICS		R135	1510	- CHARACTERISTICS		R147	1810	
	R128	1452	- RECEIVED DATA				SYSTEM READINESS PROCEDURES/TESTS				CATEGORY 2 AND 3 TEST/MISSION OPERATIONAL REQUIREMENTS PAGES 2000 TO 3999
	P129	1453	- TRANSMITTED DATA CHARACTERISTICS				PRELAUNCH TEST				TEST OPERATIONAL CONCEPTS/SUMMARIES
	R G/	1454	- ANTENNA SYSTEMS		R G/	1600	- GENERAL		R G/	2000	TEST OPERATIONAL CONCEPTS - GENERAL
	R G/	1455	- DIAGRAM		R136	1610	- IDENTIFICATION		R200	2010	GROUND SUPPORT INSTRUMENTATION SUMMARY
	R130	1456	- OPERATING MODES		R137	1620	- SEQUENCE				2020 SUMMARY SUPPORT PLAN
	R124	1457	- DATA RECORDER CHARACTERISTICS		R138	1630	TERMINAL COUNTDOWN				2030 SUPPORT COMMITMENTS
			LAUNCH VEHICLE TELEVISION SYSTEMS				TEST ENVELOPE INFORMATION				2040 FUNDING INFORMATION
	R G/	1460	- OPERATING DESCRIPTION		R139	1700	TEST ENVELOPE INFORMATION - GENERAL				2050 IMPLEMENTATION SCHEDULE
	R131	1461	- CHARACTERISTICS		R140	1710	MAJOR MISSION EVENTS - LAUNCH PHASE				2051 PERSONNEL ASSIGNMENT SCHEDULE
	R G/	1462	- ANTENNA SYSTEMS		R141	1711	MAJOR MISSION EVENTS - FLIGHT				2060 SUPPORT REQUIREMENTS WHICH CANNOT BE MET
	R132	1463	- FORMAT DESCRIPTION		R142	1712	SPACE MANEUVER - APPLICATION OF THRUST				2070 ENGINEERING PLAN
			SPACECRAFT/PAYLOAD TELEVISION SYSTEMS				TRAJECTORY DATA				2071 ENGINEERING PLAN - ALTERNATE
	R G/	1465	- OPERATING DESCRIPTION		R G/	1720	- PLAN VIEWS				2080 REQUESTER'S RESPONSIBILITIES
	R131	1466	- CHARACTERISTICS		R143	1721	- PROFILE VIEWS				2098 FLIGHT SAFETY OPERATIONAL CONCEPTS
	R G/	1467	- ANTENNA SYSTEMS		R144	1722	- LAUNCH				2099 RANGE DERIVED REQUIREMENTS
	R132	1468	- FORMAT DESCRIPTION		R145	1723	- ORBITAL AND SPACE				
			OTHER VEHICLE SYSTEMS		R146	1724	- TERMINAL				
	R133	1470	RECOVERY LOCATION AIDS								
	R134	1480	VEHICLE SYSTEMS - OTHER								

PART 2  
UDS FORM R 105 REPLACES FORM R 105 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1040 - INDEX OF UDS FORMS AND DOCUMENT OUTLINE

NOTE: This form is used to present the PRD/OR Index of Forms and Document Outline by form number, page number and appropriate title. This list is pre-printed for reference, but when Box 10 is properly completed, an "X" in that column indicates which pages of the document are active. Thus, all forms may or may not be included in the final document, and this form then serves as an outline of contents for the active pages used in the document.

BOX 1-9 Follow instructions for page 1010.

BOX 10 USED: Enter an "X" opposite those pages or series of pages used in this document.

BOX 11 FORM NO.: The form number for the corresponding page listed in Box 12 is preprinted on this form. Form numbers with an "R" prefix are used only in the PRD/OR documents. Where there is no form number listed, this indicates the form is not used in the PRD/OR, but it will be used in the PSP. When the designator R G/ appears, this indicates any one of the three General Forms R G/A, R G/B, or R G/C may be used.

BOX 12 PAGE NO.: The page number, determined by the established document numerical outline, is preprinted in this column.

BOX 13 TITLE: The appropriate title for the forms and page numbers listed in Boxes 11 and 12 are preprinted for reference. Refer to the instructions for preparation of forms for details concerning entry of titles on the general and multipurpose forms.

Date: 7-70

1. CLASSIFICATION

(PAGE TITLE) INDEX OF UDS FORMS AND DOCUMENT OUTLINE				2. REPLACES PAGE(S) DATED				3. PAGE NO. 1040			
5. PROGRAM TITLE				6. PROGRAM NO.				7. REVISION NO.			
10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE
			METRIC MEASUREMENT AND DATA				COMMAND CONTROL/DESTRUCT				OTHER SYSTEMS
			METRIC DATA				COMMAND				OTHER SYSTEMS
	R G/	2100	- GENERAL		R G/	2300	- GENERAL		R G/	2600	- GENERAL
	R209	2110	- LAUNCH		R218	2310	- CONTROL		R226	2605	- SUPPORT INSTRUMENTATION
	R209	2111	- MIDCOURSE		R G/	2320	- DESTRUCT		R G/	2610	- DATA
	R209	2112	- ORBITAL AND SPACE		R G/	2330	- UP-DATA LINK		R225	2660	- COVERAGE
	R209	2113	- (BLANK)		R G/	2340	- UP-DATA LINK RECORDINGS				
	R209	2114	- TERMINAL		R221	2360	- UP-DATA LINK STATIONS COVERAGE				
	R209	2115	- SIGNATURE								
	R G/	2116	- OTHER								
	R210	2117	- ACCURACIES						R G/	2700	- GENERAL
	R210	2120	- PARAMETER RECORDINGS						R227	2710	- DETAIL
	R G/	2130	- NETWORK COVERAGE						R G/	2720	- NETWORK DRAWING
	R211	2160	- COVERAGE						R228	2730	- NETWORK TRANSMISSION
	R212	2170	- ENGINEERING SEQUENTIAL		R G/	2400	- GENERAL		R229	2740	- INTERCOMMUNICATIONS SYSTEMS
			TELEMETRY MEASUREMENT AND DATA		R222	2410	- RECORDINGS		R230	2760	- TERMINATIONS
			TELEMETRY		R223	2460	- COVERAGE		R222	2770	- RECORDINGS
	R G/	2200	- DATA GENERAL						R231	2780	- TELEPHONE
	R213	2210	- RECORDING INTERVAL								
	R214	2220	- ANALOG STRIP CHART RECORDING FORMAT		R G/	2500	- GENERAL		R G/	2800	- GENERAL
	R215	2230	- EVENT RECORDING FORMAT		R G/	2510	- DETAIL		R232	2805	- TELEVISION
	R216	2240	- DECOMMUTATION PROCESSING SPECIFICATIONS		R224	2520	- PARAMETER RECORDINGS		R233	2810	- TIMING
	R217	2260	- COVERAGE		R G/	2530	- EVENT RECORDING FORMAT		R234	2820	- SEQUENCER
					R G/	2540	- ANALOG STRIP CHART RECORDING FORMAT		R235	2830	- VISUAL COUNTDOWN AND STATUS INDICATORS
					R225	2560	- COVERAGE				

PART 3  
UDS FORM R 105  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1040 - INDEX OF UDS FORMS AND DOCUMENT OUTLINE

**NOTE:** This form is used to present the PRD/OR Index of Forms and Document Outline by form number, page number and appropriate title. This list is pre-printed for reference, but when Box 10 is properly completed, an "X" in that column indicates which pages of the document are active. Thus, all forms may or may not be included in the final document, and this form then serves as an outline of contents for the active pages used in the document.

BOX 1-9 Follow instructions for page 1010.

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BOX 11 FORM NO.: The form number for the corresponding page listed in Box 12 is preprinted on this form. Form numbers with an "R" prefix are used only in the PRD/OR documents. Where there is no form number listed, this indicates the form is not used in the PRD/OR, but it will be used in the PSP. When the designator R G/ appears, this indicates any one of the three General Forms R G/A, R G/B, or R G/C may be used.

BOX 12 PAGE NO.: The page number, determined by the established document numerical outline, is preprinted in this column.

BOX 13 TITLE: The appropriate title for the forms and page numbers listed in Boxes 11 and 12 are preprinted for reference. Refer to the instructions for preparation of forms for details concerning entry of titles on the general and multipurpose forms.



Date: 11-79

## 1. CLASSIFICATION

[illegible]

PART 4  
UDS FORM R 105 REPLACES FORM P 105 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

Preparation Instructions: PAGE 1640 - INDEX OF JDS FORMS AND DOCUMENT OUTLINE

NOTE: This form is used to prevent the PRD/MS Index of Forms and Document Outline by firm number, page number and appropriate title. This list is pre-printed for reference, but when box 10 is properly completed, an "X" in that column indicates which pages of the document are active. Thus, all forms may or may not be included in the final document, and this form then serves as an outline of contents for the active pages used in the document.

50X 1-9 Follow instructions for page 1010.

3CX 10 USED: Enter an "X" opposite those pages or series of pages used in this document.

BOX 11 FORM NO.: The form number for the corresponding page listed in Box 12 is preprinted on this form. Page numbers with an "R" prefix are used only in the PRO/ OR documents. Where there is no form number listed, this indicates the form is not used in the PRO/OR, but it will be used in the PSP. When the designator R G/ appears, this indicates any one of the three General Forms R G/A, R G/B, or R G/C may be used.

BOX 12 PAGE NO.: The page number, determined by the established document numerical outline, is preprinted in this column.

90X 13 TITLE: The appropriate title for the forms and page numbers listed in Boxes 11 and 12 are preprinted for reference. Refer to the instructions for preparation of forms for details concerning entry of titles on the general and multipurpose forms.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) INDEX OF UDS FORMS AND DOCUMENT OUTLINE				2. REPLACES PAGE(S) DATED _____				3. PAGE NO. 1040			
5. PROGRAM TITLE				6. PROGRAM NO.				7. REVISION NO.			
10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE	10. USED	11. FORM NO.	12. PAGE NO.	13. TITLE
			<u>CATEGORY 4</u> <u>COORDINATE SYSTEMS/</u> <u>DATA</u> <u>PROCESSING AND DISPOSITION</u> <u>PAGES 4000 TO 4999</u>				<u>CATEGORY 5</u> <u>BASE FACILITIES/LOGISTICS</u> <u>PAGES 5000 TO 5999</u>				<u>LABORATORY</u>
			DATA PROCESSING				PERSONNEL ASSIGNMENT SCHEDULES				LABORATORY
	R G/	4100	- DATA COMPUTER PROCESSING SPECIFICATIONS - GENERAL		R G/	5100	- GENERAL		R G/	5400	- GENERAL
	R400	4110	- DATA COMPUTER PROCESSING SPECIFICATIONS - DETAIL		R500	5110	- DETAIL		R510	5410	- CHEMICAL AND PHYSICAL ANALYSIS
	R401	4160	- DATA PROCESSING		R501	5120	- HOUSING		R G/	5420	- SPECIAL ENVIRONMENT
			DATA DELIVERY AND DISPOSITION				TRANSPORTATION				MAINTENANCE
			DATA DISPOSITION - GENERAL				TRANSPORTATION				MAINTENANCE
			DATA AVAILABILITY		R G/	5200	- GENERAL		R G/	5500	- GENERAL
	R403	4205	- DATA REPORTS		R502	5210	SURFACE LOGISTICS SCHEDULE				FACILITIES
	R404	4210	- DATA DISPOSITION - DETAIL		R502	5220	AIR LOGISTICS SCHEDULE				FACILITIES
							SUPPLY/STORAGE/SERVICE SERVICES				FACILITIES
					R503	5300	- GENERAL		R511	5600	- GENERAL
					R504	5310	- PROPELLANTS, GASES AND CHEMICALS		R512	5610	- DRAWINGS
					R504	5320	- AIRCRAFT AND GROUND VEHICLE FUELS		R513	5620	- LAUNCHER AND PLATFORM CHARACTERISTICS
					R504	5330	- MISCELLANEOUS LUBRICANTS, HYDRAULIC FLUIDS, PRESERVATIVES, ETC.				CATEGORY 6 OTHER SUPPORT PAGES 6000 TO 6999
					R505	5340	- VEHICLES AND GROUND HANDLING EQUIPMENT				OTHER SUPPORT
					R506	5350	- REQUESTING AGENCY AIRCRAFT		R G/	6000	- GENERAL
					R507	5360	- SEACRAFT		R600	6010	- TEST INSTRUMENT MAINTENANCE AND CALIBRATION
					R508	5370	- CHEMICAL CLEANING		R601	6020	- REQUIREMENTS FOR SUPPORT AGENCIES
					R509	5380	- LOCAL PURCHASE OR BASE FUNDED ITEMS				

PART 5  
UDS FORM R 105 REPLACES FORM R 105 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1040 - INDEX OF UDS FORMS AND DOCUMENT OUTLINE

**NOTE:** This form is used to present the PRD/OR Index of Forms and Document Outline by form number, page number and appropriate title. This list is pre-printed for reference, but when Box 10 is properly completed, an "X" in that column indicates which pages of the document are active. Thus, all forms may or may not be included in the final document, and this form then serves as an outline of contents for the active pages used in the document.

BOX 1-9 Follow instructions for page 1010.

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BOX 12 PAGE NO.: The page number, determined by the established document numerical outline, is preprinted in this column.

BOX 13 TITLE: The appropriate title for the forms and page numbers listed in Boxes 11 and 12 are preprinted for reference. Refer to the instructions for preparation of forms for details concerning entry of titles on the general and multipurpose forms.

Date: 11-79

1. CLASSIFICATION _____		2. REPLACES PAGE (S)		3. PAGE NO. 1050	
(PAGE TITLE) PROGRAM/MISSION SECURITY INFORMATION		DATED		4. DATE	
5. PROGRAM TITLE		6. PROGRAM NO.		7. REVISION NO.	
10. SECURITY GUIDES AND DOCUMENTS		11. CONFIRMATION - PROGRAM SECURITY ADVISOR			
12. PROGRAM/MISSION ELEMENTS					13. SEC. CLASH

WDS FORM R 106  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1050 - PROGRAM/MISSION SECURITY INFORMATION

**NOTE:** This form is used to list the security classification of classified data/information pertaining to the program, mission, or test.

The following security classification symbols will be used throughout this document:

- BOX 1-7 Follow instructions for page 1010.
- BOX 10 SECURITY GUIDES AND DOCUMENTS: List the various security guides and documents used to establish the classification and to control the documentation of the information elements listed in Box 12.
- BOX 11 CONFIRMATION - PROGRAM SECURITY ADVISOR: Type in the name and rank or title of the security advisor. The security advisor will, by his/her signature in this box, certify the correctness of the security classification entered for each item listed in Box 12.
- BOX 12 PROGRAM/MISSION ELEMENTS: Identify program/mission information elements for which security classification is required.

TS TOP SECRET  
S SECRET  
C CONFIDENTIAL  
U UNCLASSIFIED  
F FOR OFFICIAL USE ONLY  
RD RESTRICTED DATA  
FRD FORMERLY RESTRICTED DATA  
N CRITICAL NUCLEAR WEAPON DESIGN INFORMATION

BOX 13 SEC. CLASH: Enter the security classification of the program/mission elements identified in Box 12. Designators used will be in accordance with instructions in Box 12.

Date: 11-79

1. CLASSIFICATION					2. REPLACES PAGE (S)		3. PAGE NO.	
(PAGE TITLE)					DATED		4. DATE	
SYSTEM SECURITY CLASSIFICATION					5. PROGRAM NO.		7. REVISION NO.	
1. PROGRAM TITLE					6. PROGRAM NO.		7. REVISION NO.	
11. SECURITY CLASS		12. SECURITY CLASS		13. SECURITY CLASS		14. SECURITY CLASS		
S C U OTHER		S C U OTHER		S C U OTHER		S C U OTHER		
A. OVER-ALL PROGRAM		V. TARGETS		W. DRAWINGS SKETCHES PHOTOGRAPHS EXTERNAL OR INTERNAL VIEWS, AND DESIGN INFORMATION.				
B. PRIME CONTRACTOR				(1) PROPULSION SYSTEMS				
C. LISTS OF CONTRACTORS, ASSOCIATE CONTRACTORS AND/OR SUB-CONTRACTORS ON TEST PROGRAM				(2) CONTROL AND GUIDANCE SYSTEM				
D. PRODUCTION, PROCUREMENT AND SUPPLY INFORMATION				(3) WARHEAD				
E. TITLE OF R & D PROGRAM				(4) NOSE CONE				
F. TEST VEHICLE OR MISSILE NAME				(5) CAPSULE				
G. TYPE DESIGNATION				(6) TARGETS				
H. EXTERNAL CONFIGURATION				(7)				
(1) VIEWED FROM OUTSIDE LAUNCH COMPLEX				V. OPERATION READINESS DATE				
(2) VIEWED FROM INSIDE LAUNCH COMPLEX				Z. COMBAT READINESS DATE				
(3) VIEWED IN ASSEMBLY BUILDING				AA. INSTRUMENTATION				
I. PHYSICAL CHARACTERISTICS				BB. INSTRUMENTATION				
J. SPEED, ALTITUDE, RANGE				CC. TRAINING EQUIPMENT				
K. COUNTERMEASURE INFORMATION				DD. GROUND SUPPORT EQUIPMENT				
L. TEST INITIATION DATE				EE. RAW DATA				
M. TEST COMPLETION DATE				FF. REDUCED DATA				
N. STATUS AND PROGRESS REPORT				GG. TECHNICAL PUBLICATIONS				
O. TEST AND PERFORMANCE INFORMATION				HH.				
P. PROPULSION SYSTEM		TYPE DESCRIPTION		II. SECURITY GUIDES AND DOCUMENTS		15. CONFIRMATION - OFFICE SECURITY ADVISOR		
Q. GUIDANCE SYSTEM		TYPE DESCRIPTION						
R. CONTROL SYSTEM		TYPE DESCRIPTION						
S. WARHEAD		TYPE DESCRIPTION						
T. NOSE CONE		TYPE DESCRIPTION						
U. CAPSULE		TYPE DESCRIPTION						

U.S. FORM R 107  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1052 - SYSTEM SECURITY CLASSIFICATION

**NOTE:** This form is used by the Project Office and not by the contractor(s). It will serve as a security guide for the program for those that handle data, drawings and equipment.

BOX 1-7 Follow instructions for page 1010.

BOX 10 **ITEM:** This column includes a wide variety of items that may have a unique security classification. Space is provided to add any other items not listed.

BOX 11 **SECURITY CLASS:** Enter an "X" in the appropriate downgrading declassification instructions (e.g., Declassify 1992 - 0-92; Review 1998 - R-98) and any special warning designators (e.g., RD, FRD, N).

For example, a particular warhead is classified SECRET-RESTRICTED DATA. Enter RD in the "OTHER" column. Had the warhead in this example been classified TOP SECRET-RESTRICTED DATA, the entry in the "OTHER" column would have been TS-RD.

Items of a program which require "Encrypt for Transmission Only," to protect UNCLASSIFIED INFORMATION transmitted via electrical messages, will be indicated by placing the notation EFTO in the "OTHER" column.

BOX 12 **SECURITY GUIDES AND DOCUMENTS:** List the various security classification guides and other source documents which are used to promulgate classification authority.

BOX 13 **CONFIRMATION-OFFICE SECURITY ADVISOR:** Type in the name and grade of the security advisor. The security advisor will, by his/her confirmation signature in this item, certify the correctness of the security classification entered for each item listed on this page.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) <b>SYSTEM SECURITY CLASSIFICATION MATRIX</b>							2. REPLACES PAGE(S) DATED _____				3. PAGE NO. 1054 4. DATE _____					
5. PROGRAM TITLE _____							6. PROGRAM NO. _____				7. REVISION NO. _____					
10.	EVENT	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
1	PROGRAM NUMBER, NAME OR ACRONYM															
2	RANGE TEST PROGRAM NUMBER															
3	RANGE OPERATION NUMBER															
4	LAUNCH NUMBER															
5	LAUNCH FACILITY															
6	PAYLOAD IMPACT/RECOVERY AREA															
7	PAYLOAD RECOVERY REQUIRED															
8	TOTAL NUMBER OF LAUNCHES															
9	NUMBER OF REMAINING LAUNCHES															
10	PAYLOAD SERIAL NUMBER															
11	BOOSTER SERIAL NUMBER															
12	BOOSTER TYPE															
13																
14																
15																
INDICATE CLASSIFICATION BEFORE AND AFTER LAUNCH (EXAMPLE: S/U - SECRET BEFORE, UNCLASSIFIED AFTER) U - UNCLASSIFIED F - FOR OFFICIAL USE ONLY C - CONFIDENTIAL NA - NOT APPLICABLE S - SECRET							11. NOTES/REMARKS									

UOS FORM R 108 REPLACES FORM R 108 DATED JUL 77  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1054 - SYSTEM SECURITY CLASSIFICATION MATRIX

**NOTE:** This form is used to indicate the classification of various combinations of information and commonly used identifiers both before and after launch. This page will only be used when combining bits of information change the level of security classification of the combination to a level higher than that of the highest bit in the combination.

BOX 1-7 Follow instructions for page 1010.

BOX 10 **EVENT:** The vertical columns 1-15 have the same event descriptions as shown in the horizontal rows 1-15. Enter the appropriate security classification for the combination of information indicated by the matrix.

If the security classification for certain combinations of information changes with the occurrence of the launch, enter the appropriate classification before launch in the upper left and after launch in the lower right of each box.

If the classification changes after a launch, but only after a certain time period, note by a footnote symbol and explain in Box 11. For example, S/U(1), (1) UNCLASSIFIED 30 days after launch, CONFIDENTIAL during interim period.

BOX 11 **NOTES/REMARKS:** Enter as appropriate.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

3. PAGE NO. 1056				
4. DATE				
5. PROGRAM NO.				
7. REVISION NO.				
9. ITEM NO.	10. FACILITY	11. ADDRESS	12. FACILITY CLEARANCE & GRANTING AGENCY	13. DEGREE OF SAFEGUARDING ABILITY

JOS FORM R 109  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1056—SECURITY AUTHORIZATION

NOTE: This form is used by the Requesting Agency to list those non-Government agencies who are entitled to receive classified range material, the clearance possessed by that agency, the agency that granted the clearance, and the degree of safeguarding ability that the non-Government agency has.

BOX 1-8 Follow instructions for Page 1010.

BOX 10 FACILITY: Enter the name of the non-Government agency to whom the classified material is to be forwarded.

BOX 11 ADDRESS: Enter the address of the agency involved.

BOX 12 FACILITY CLEARANCE AND GRANTING AGENCY: Enter the facility clearance of the non-Government agency concerned, the name of the Government agency granting the facility clearance, and the date the clearance was granted or last renewed.

BOX 13 DEGREE OF SAFEGUARDING ABILITY: Enter the degree of capability the agency has for storing and safeguarding classified material.

Date: 7-70

1. CLASSIFICATION _____		2. REPLACES PAGE (S)		3. PAGE NO. 1060	
(PAGE TITLE) PREFACE *		4. DATE		5. DATE	
6. PROGRAM TITLE		7. PROGRAM NO.		8. REVISION NO.	
9. ITEM NO.	10. TEST CODE	11. DISCUSSION *			

DD FORM 2 7/70  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1060—PREFACE

**NOTE:** This form is used to present information concerning the organization of the document, criteria followed, or deviations that are required to augment and clarify the method used to present the requirements. Do not include information that is presented on Pages 1061, 1062, 1063, 1064, and 1065 which follow this section; however, on small programs, all information on the additional referenced pages may be included on the single Preface, Page 1060.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DISCUSSION:** Enter any information concerning the organization of the document, criteria followed, or deviations that are required to augment and clarify the method used to present the requirements.

Date: 7-70

1. CLASSIFICATION		2. REPLACES PAGE (S)		3. PAGE NO. 1061	
(PAGE TITLE) SPECIAL ABBREVIATIONS AND NOMENCLATURE				4. DATE	
5. PROGRAM TITLE				6. PROGRAM NO.	
				7. REVISION NO.	
10. WORD OR ABBREVIATION	11. DEFINITION OR MEANING	10. WORD OR ABBREVIATION	11. DEFINITION OR MEANING		

UOS FORM R 110  
JULY 70

1. CLASSIFICATION

**Preparation Instructions: PAGE 1061—SPECIAL ABBREVIATIONS AND NOMENCLATURE**

**NOTE:** This form is used to define any word or abbreviation which, due to limited use or technical affiliation, may not be readily understood.

**BOX 1-7** Follow instructions for Page 1010.

**BOX 10** **WORD OR ABBREVIATION:** List the word or abbreviation.

**BOX 11** **DEFINITION OR MEANING:** Give the full definition or meaning as it applies to the subject for which the abbreviation or word is used.



Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) <b>TEST CODE DEFINITION *</b>		2. REPLACES PAGE (S)  DATED	3. PAGE NO. 1062
4. PROGRAM TITLE		5. PROGRAM NO.	6. DATE
7. REVISION NO.			
8. ITEM NO.	9. TEST CODE	10. TEST CODE DESCRIPTION *	

NSG FORM R 67A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.]

Preparation Instructions: PAGE 1062 - TEST CODE DEFINITION

**NOTE:** This form is used to define the test codes that will be used throughout this document. These test codes will identify the various test activities during the course of the program. These test codes will be used as a method of correlating support requirements to the test activity involved such that any support requirement referenced to a test code indicates that this support will be required during the particular test program activity.

BOX 1-8 Follow instructions for page 1010.

BOX 9 **TEST CODE:** Enter a test code letter (A, B, C, etc.) for each portion of the test program which has similar support requirements. This apportionment might separate test series, development phases of the program, time periods within the program, variations in equipment being utilized, or any other meaningful breakout of the program with regard to support requirements. Double letters may be used to further break down the single-letter test code (AA, AB, AC, etc., within A).

BOX 10 **TEST CODE DESCRIPTION:** Enter a short title to identify the test series or phase of the program to be conducted. Examples of test series, each of which might be assigned a separate test code, are as follows:

Launch  
Dry Run  
Static Firing  
Simulated Flight  
Instrumentation Tests  
Recoveries

The test code could also be used to designate various time intervals or development phases of the program. Examples of these phases might be pad buildup, launch phase, or any other phase which would divide the program with regard to support requirements.

Still another use of the test code would be to designate various types or groups of similar test series such as demonstration and shakedown operations or follow-on training launches. Different missions or series of missions that are covered in the same PRD could thus be designated by different test codes.

Date: 11-79

1. CLASSIFICATION		2. REPLACES PAGE (S)		3. PAGE NO. 1063	
(PAGE TITLE) ITEM NUMBER DEFINITION *		4. DATE		5. DATE	
6. PROGRAM TITLE		7. PROGRAM NO.		8. REVISION NO.	
9. ITEM NO.	10. TEST CODE	11. ITEM NUMBER DEFINITION *			

UDS FORM R G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 1063 - ITEM NUMBER DEFINITION

**NOTE:** This form is used to define the item numbering system that will be used throughout this document. The item number provides a means of identifying and locating a requirement within each organizational section of this document. The item numbering system is defined by the Requesting Agency. Refer to section 2, subparagraph 2.7 h, of this volume for criteria used in assigning item numbers.

**BOX 10** ITEM NUMBER DEFINITION: Enter an explanation of the basic elements, the method of constructing the number, and any item number-letter designators that may be used. The nature of a specific program, mission, or test will dictate the type of item numbering system required. The complete item number is limited to a total of 12 characters on a standard typewriter. Guidelines for preparation of the system and samples may be found in section 2, subparagraph 2.7 h, of this volume.

BOX 1-9 Follow instructions for page 1010.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) <b>KEY TECHNICAL PERSONNEL</b>					2. REPLACES PAGE (S)  DATED		3. PAGE NO. 1064	
5. PROGRAM TITLE					6. PROGRAM NO.		7. REVISION NO.	
8. ITEM NO.	9. TEST CODE	10. NAME	11. ORGANIZATION	12. TITLE AND OFFICE	13. BUSINESS ADDRESS		14. TELEPHONE NO.	

OS FORM R 111  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 1064—KEY TECHNICAL PERSONNEL**

**NOTE:** This form is used to list the cognizant technical personnel who may be contacted regarding matters connected with the program or concerning information contained in this document.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **NAME:** Enter last name, first name, middle initial, and rank, if applicable.

**BOX 11** **ORGANIZATION:** Enter the organization of the person listed in Box 10.

**BOX 12** **TITLE AND OFFICE:** Enter the title, if applicable, and office of the person listed in Box 10.

**BOX 13** **BUSINESS ADDRESS:** Enter the name of the city, base, center or station where the person may be located during the program. Include ZIP code if address is given.

**BOX 14** **TELEPHONE NUMBER:** Enter the complete telephone number including area code and extension at the location specified in Box 13.

Date: 7-70

## 1. CLASSIFICATION

(PAGE TITLE)			1. REPLACES PAGE (S)		3. PAGE NO.	
TECHNICAL REFERENCES			DATED		4. DATE	
5. PROGRAM TITLE			6. PROGRAM NO.		7. REVISION NO.	
8. REFERENCE		9. TITLE	10. PUBLISHER AND DATE	11. SOURCE	12. SEC CL	
A. ITEM	B. PAGE					

105 APR 2 112  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 1065—TECHNICAL REFERENCES

**NOTE:** This form is used to list sources of supplemental information concerning the program or to provide additional background for specific requirements listed on individual pages of the document. References cannot be used for the purpose of levying requirements, but they may be used to explain details that are too lengthy or complicated to be incorporated into the document.

BOX 1-7 Follow instructions for Page 1010.

BOX 10      REFERENCE:

- A. **ITEM:** List the item number to which the reference pertains, if applicable.
- b. **PAGE:** List the page number to which the reference pertains, if applicable.

**BOX 11**      **TITLE:** Enter the title of the reference.

**BOX 12**      **PUBLISHER AND DATE:** Enter publisher and date of each referenced document.

BOX 13 SOURCE: Enter the organization and its complete address from which copies of the reference may be obtained.

BOX 14 SEC CL: Enter the security classification of each reference by placing the appropriate letter in this column.

## 1. CLASSIFICATION

LOS ANGELES 2 6/A  
JULY 70

## 1. CLASSIFICATION

Preparation Instructions: PAGE 1100—PROGRAM DESCRIPTION - GENERAL

BOX 1-9 Follow instructions for Page 1010.

**BOX 10**      **DESCRIPTION:** Give a general description of the overall program. A brief description of each test or category of tests may be included. When a specific test or category of test may require unique support, the test should be described.

Date: 7-70

1. CLASSIFICATION _____			
(PAGE TITLE) <b>EXPERIMENTS DESCRIPTION *</b>		2. REPLACES PAGE (S)  DATE	3. PAGE NO. 1110 4. DATE
5. PROGRAM TITLE		6. PROGRAM NO.	7. REVISION NO.
8. ITEM NO.	9. TEST CODE	10. DESCRIPTION *	

UDS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 1110--EXPERIMENTS DESCRIPTION**

**NOTE:** This form is used to provide a general description of the various experiments assigned to the program.

**BOX 1-9** Follow instructions for PAGE 1010.

**BOX 10** **DESCRIPTION:** Enter a general description of the experiments assigned to the overall program. A brief description of each experiment or category of experiments may be included. Identify the agency to which a particular experiment is assigned for development. Include the type data resulting from each experiment, e.g., tape, film, material samples, telemetry, flight log, voice recordings, etc.

Date: 7-70

1. CLASSIFICATION		2. REPLACES PAGE (S)		3. PAGE NO. 1120	
(PAGE TITLE) SYSTEM MISSION CAPABILITIES		4. DATES		5. DATE	
6. PROGRAM TITLE		7. ITEM NO.	8. TEST CODE	9. PROGRAM NO.	10. REVISION NO.
11. CHARACTERISTICS		12. OPERATIONAL PROFILE/SKETCH OF TEST SITUATION			
A. MISSION OF OPERATIONAL SYSTEM					
B. SIGNIFICANT CHARACTERISTICS AND CAPABILITIES					
C. CONSTRAINTS INFLUENCING DESIGN					
D.					

ODS FORM R 113  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1120—SYSTEM MISSION CAPABILITIES

**NOTE:** This page and Page 1125 are used to provide the Support Agency with an insight to the basic philosophy which governs the system design, fabrication, test program, and ultimate use.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **CHARACTERISTICS:** Enter a brief description of the system as outlined by the following subgroups. Space is available for an additional category if applicable.

Box A. Describe the general purpose of the completed operational system. Examples: To destroy a single maneuverable (2g capability), 3,000-mpa aircraft attacking at 50,000 feet altitude; destruction to be accomplished before the aircraft is within 100 miles of target. To gather scientific data on cosmic dust above 1,000 miles altitude.

Box B. List operational characteristics and capabilities of the final operational system (e.g., 5,000-mile range, heat seeker initiates terminal dive, etc.).

Box C. List the main factors which influence the methods used in developing the operational unit. For example, mobility of a land-based launching system might be of prime importance. A short time schedule might be the factor of next importance, etc.

Box D. List any additional characteristics.

**BOX 11** **OPERATIONAL PROFILE/SKETCH OF TEST SITUATION:** In the space provided, show the operational profile and/or a sketch of the tactical situation for which the system is designed. Illustrate the major events to take place.

Date: 7-70

1. CLASSIFICATION			2. REPLACES PAGE (S)		3. PAGE NO. 1125	
(PAGE TITLE) SYSTEM FUNCTIONAL DESCRIPTION			4. DATED		5. DATE	
6. PROGRAM TITLE			7. ITEM NO.		8. TEST CODE	
9. PROGRAM NO.			10. PROGRAM NO.		11. REVISION NO.	
12. SUB SYSTEM/MAJOR COMPONENT	13. FUNCTIONAL CHARACTERISTICS	14. SYSTEM FUNCTIONAL BLOCK DIAGRAM				

UOS FORM R 114  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1125—SYSTEM FUNCTIONAL DESCRIPTION

NOTE: This page along with Page 1120 is used to provide the Support Agency with an insight into the basic philosophy which governs the system design, fabrication, test program, and ultimate use.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 SUBSYSTEM/MAJOR COMPONENT: List the subsystems and/or major components of the final operational system. These should correspond to the functional blocks given in Box 12.

BOX 11 FUNCTIONAL CHARACTERISTICS: Enter a brief description of functional characteristics of each major component and subsystem.

BOX 12 SYSTEM FUNCTIONAL BLOCK DIAGRAM: Using block diagram methods, indicate the functional relationship between subsystems and/or major components of the complete operational weapon system. Such items as the target, target acquisition unit, target data processor, guidance system, control mechanisms, necessary support supplied, etc., may be considered as major functional components. Also include and note items considered to be unusual.



Date: 7-70

## 1. CLASSIFICATION

(PAGE TITLE) MISSION/TEST DESCRIPTION *		2. REPLACES PAGE (S)  DATE	3. PAGE NO. 1130
5. PROGRAM TITLE		6. PROGRAM NO.	7. REVISION NO.
8. ITEM NO.	9. TEST CODE	10. DESCRIPTION *	

LOS FROM R G/A  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 4 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

## Preparation Instructions: PAGE 1130—MISSION/TEST DESCRIPTION

NOTE: This form is used to provide a detailed description of the mission or test.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Give a detailed description of the mission or test. Each phase of the mission or test should be identified and described.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) <b>MISSION / TEST OBJECTIVES</b>		2. REPLACES PAGE (S)  DATED	3. PAGE NO. <b>1131</b>
5. PROGRAM TITLE		6. TEST CODE	7. REVISION NO.
8. ITEM NO.	9. CATEGORY	10. OBJECTIVES	

DD FORM R 115  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1131 - MISSION/TEST OBJECTIVES

NOTE: This form is used to list the primary and secondary objectives of the mission.

BOXES 1-9 Follow instructions for page 1010.

BOX 10 CATEGORY: Indicate whether the objectives (Box 11) are Category I, II, or III. (See volume 2, subparagraph 1.7.6.2, for explanation of objectives and categories.)

BOX 11 OBJECTIVES: Describe the objectives of each operation or series of operations briefly, but in sufficient detail to substantiate the data requirements.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

PAGE TITLE: TEST PROGRAM OPERATIONS SCHEDULE					2. REPLACES PAGE(S)		3. PAGE NO. 1140												
5. PROGRAM TITLE					DATED		4. DATE												
					6. PROGRAM NO.		7. REVISION NO.												
9. ITEM NO.	10. TEST CODE	11. TEST SERIES	12. RANGE HRS/TEST	12. NUMBER OF TESTS/QUARTER															
				CY				CY				CY				CY			
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

JCS FORM R 116 NOV 79 REPLACES FORM R 116 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1140 - TEST PROGRAM OPERATIONS SCHEDULE

**Notes:** This form is used to provide a schedule of the test series events or activities that will require support during the course of the test program or mission. The scheduling (forecast) information will be used by the Support Agency to coordinate these activities with other test program activities on the range.

BOX 1-9 Follow instructions for page 1010.

**BOX 10** TEST SERIES: Enter the title of principal test series or operations to be conducted.

**BOX 11** RANGE HOURS/TEST: Enter the number of support hours required for each of the test events listed in Box 10.

**BOX 12** NUMBER OF TESTS/QUARTER: Enter the last two digits of the applicable calendar year (CY) in the heading. For each item in Box 10, enter the planned number of tests per quarter under each test code for the complete test program.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

(PAGE TITLE) VEHICLE DESCRIPTION - GENERAL *		2. REPLACES PAGE (S)  DATE	3. PAGE NO. 1300
5. PROGRAM TITLE		6. PROGRAM NO.	7. REVISION NO.
8. ITEM NO.	9. TEST CODE	10. DESCRIPTION *	

DD FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 1300 - VEHICLE DESCRIPTION - GENERAL

**NOTE:** This form is used to describe the entire vehicle. Added pages may be used for a vehicle drawing, if required. Other systems descriptions may also be used if applicable, e.g., aircraft, target, electronic/electro-optical.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **DESCRIPTION:** Enter a brief description of the vehicle. Provide identification of each stage or section of the vehicle.

Date: 7-70

## 1. CLASSIFICATION

1. PAGE TITLE MILITARY POLICE - COMMISSION		2. REPLACES PAGE (S)	3. PAGE NO. 1310
		DATED	4. DATE
5. PROGRAM TITLE		6. PROGRAM NO.	7. REVISION NO.
8. ITEM NO.	9. TEST CODE	10. DESCRIPTION	

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

## 1. CLASSIFICATION

The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

## Preparation Instructions: PAGE 1310-LAUNCH VEHICLE - DESCRIPTION

NOTE: This form is used to describe the launch vehicle.

BOX 1-4 Follow instructions for Page 1010.

**BOX 19**      **DESCRIPTION:** Enter a brief description of the launch vehicle. Provide a description of each stage or section of the vehicle.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |    |    |    |    |                              |             |                  |  |
|--|----|----|----|----|------------------------------|-------------|------------------|--|
| [PAGE TITLE]<br><b>LAUNCH VEHICLE - CHARACTERISTICS*</b>   |    |    |    |    | 2. REPLACES PAGE(S)<br>DATED |             | 3. PAGE NO. 1311 |  |
| 5. PROGRAM TITLE   |    |    |    |    | 8. ITEM NO.                  |             | 9. TEST CONF     |  |
|  |    |    |    |    | 6. PROGRAM NO.               |             | 7. REVISION NO.  |  |
| 10. STAGE-MODULE NOMENCLATURE  | A. | B. | C. | D. | E. TOTALS                    | 16. REMARKS |                  |  |
| 11. PHYSICAL DIMENSIONS<br>A. LENGTH<br>B. DIAMETER<br>C. WIDTH - MAX.   |    |    |    |    |                              |             |                  |  |
| 12. WEIGHTS<br>A. DRY (EMPTY - NO FUEL)<br>B. PROPELLANT OR FUEL<br>C. OXIDIZER<br>D. GASES<br>E. MISCELLANEOUS<br>F. DESTRUCT MATERIAL<br>G. LAUNCH<br>H. BURNOUT           |    |    |    |    |                              |             |                  |  |
| 13. PROPULSION SYSTEM<br>A. TYPE ENGINE<br>B. MANUFACTURER<br>C. DESIGNATION<br>D. NUMBER OF ENGINES<br>E. SPECIFIC IMPULSE-ISP<br>F. THRUST - ENG<br>G. THRUST DURATION-SEC |    |    |    |    |                              |             |                  |  |
| 14. PROPELLANTS AND GASES<br>A. PROPELLANT OR FUEL<br>B. OXIDIZER<br>C. GASES<br>D. GAS PRESSURE   |    |    |    |    |                              |             |                  |  |
| 15. PERFORMANCE<br>A. RANGE<br>B. ALTITUDE<br>C. MAX VELOCITY<br>D. MAX ACCELERATION - G<br>E. TIME - T + SEC  |    |    |    |    |                              |             |                  |  |

UDS FORM R 117 REPLACES FORM R 117 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 1311 - LAUNCH VEHICLE - CHARACTERISTICS

**NOTE:** This form is used to enter launch vehicle characteristics. Refer to page 1040, Index of UDS Forms and Document Outline, for title and page numbers. Units of measure must be identified.

BOX 1-9 Follow instructions for page 1010.

BOX 10 STAGE-MODULE NOMENCLATURE: Enter each stage or flight item in order (Box A, B, C, etc.) of flight sequence. Applicable totals will be entered in Box E.

BOX 11 PHYSICAL DIMENSIONS: Enter the total and per stage dimensions as requested.

BOX 12 WEIGHTS: Enter the weight data as requested. In Box 12B list the weight of the propellant or fuel. If the propellant is mixed onboard prior to combustion, list the fuel in Box 12B and the oxidizer in Box 12C. Box 12D covers all gases used for propulsion, control, pressurization, etc. Box 12E will cover, collectively, all miscellaneous items normally too numerous to mention and not covered by other listings in this box. In Box 12H list burn-out weight per stage.

BOX 13 PROPULSION SYSTEM: In Box 13A list type as liquid, solid, nuclear, etc. In Box 13E the  $I_{sp}$  value will be assumed at sea level (SL) unless otherwise noted in the applicable box.

BOX 14 PROPELLANTS AND GASES: Identify the type (name or designation) of propellants and gases used in each stage or phase. In Box 14A list the propellant or fuel. If the propellant is mixed prior to combustion, list the fuel in Box 14A and the oxidizer in Box 14B. Use Box 14D to list the pressure of the larger quantity gaseous item and identify the item in each box.

BOX 15 PERFORMANCE: After the items in Boxes 15A, 15B and 15C, and in the space provided per box, enter the unit of measure that best fits the flight particulars. Normally, range is in nautical miles, altitude is in feet and velocity is in feet per second. List in Box 15E the more applicable or appropriate time items per stage and identify, in the box, each value used, i.e., 80 (Burnout), SEP (Separation), IMP (Impact), etc.

BOX 16 REMARKS: Enter notes and pertinent operational characteristics or capabilities of the system being tested.

Date: 7-70

|  |             |                              |                |                     |
|--|-------------|------------------------------|----------------|---------------------|
| 1. CLASSIFICATION _____                    |             |                              |                |                     |
| (PAGE TITLE)<br>LAUNCH VEHICLE - DRAWING * |             | 2. REPLACES PAGE (S)<br>DATE |                | 3. PAGE NO.<br>1312 |
| 4. DATE                                    |             | 5. REVISION NO.              |                |                     |
| 6. PROGRAM TITLE                           | 7. ITEM NO. | 8. TEST CODE                 | 9. PROGRAM NO. | 10. DRAWING *       |

100 FORM 10-70  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1312—LAUNCH VEHICLE - DRAWING

NOTE: This form is used to show the external characteristics of the launch vehicle. Include antenna locations, paint patterns, camera targets, etc. Side and top views are required.

BOX 1-9 Follow instructions for Page 1010.

BOX 11 DRAWING: Enter a drawing of the launch vehicle in the space provided, showing basic dimensions of length, station number of all field splices and separation planes, width, and body diameter. Special features should also be shown, e.g., paint patterns, characteristic markings, and station number locations of antennas, stages, field splices and other pertinent components. All station numbers of the vehicle must be referenced to a common point. In the top view of the vehicle show azimuth locations of all antennas from the top of the vehicle measured from True North with the vehicle on the launch pad in the nominal launch position. If it is more desirable to increase the drawing scale, separate forms may be used for each view. Do not include locations of ordnance items as they will be placed on a similar drawing on Page 1314.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |                 |                |                     |              |                      |                                    |            |  |                  |  |   |  |                              |           |             |
|---|-----------------|----------------|---------------------|--------------|----------------------|------------------------------------|------------|--|------------------|--|---|--|------------------------------|-----------|-------------|
| (PAGE TITLE)<br><b>LAUNCH VEHICLE - ORDNANCE ITEMS DESCRIPTION*</b> |                 |                |                     |              |                      | 2. REPLACES PAGE(S)<br>DATED _____ |            |  | 3. PAGE NO. 1313 |  |   |  |                              |           |             |
| 5. PROGRAM TITLE  |                 |                |                     |              |                      | 6. PROGRAM NO.                     |            |  | 7. REVISION NO.  |  |   |  |                              |           |             |
| 8.<br>ITEM NO.  | 9.<br>TEST CODE | 10.<br>PURPOSE | 11.<br>TYPE/<br>QTY | 12.<br>STAGE | 13.<br>MFR. PART NO. | 14.<br>INST                        | 15.<br>LDS | 16. LEAD-LGTH<br>A. SHLD B. UNINS C. INSTL |                  |  | 17. CURRENT-AMPS<br>A. MAX B. MIN C. NORM |  | 18. BRIDGE<br>A. MAT B. OHMS | 19. CLASS | 20. RF SAFE |
|   |                 |                |                     |              |                      |                                    |            |  |                  |  |   |  |                              |           |             |
| 21. REMARKS   |                 |                |                     |              |                      |                                    |            |  |                  |  |   |  |                              |           |             |

UDS FORM R 118 REPLACES FORM R 118 DATED JUL 77  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

[\*This form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 1313 - LAUNCH VEHICLE - ORDNANCE ITEMS DESCRIPTION

**NOTE:** This form is used for launch vehicle requirements. This data will provide the Support Agency with knowledge of electrically initiated ordnance items and Requesting Agency's RF radiation sources. Thus, precautions can be taken to prevent accidental ignition of electrically initiated ordnance items. Reference any applicable technical documents, handbooks, notes, prints, etc., on this page and describe them on page 1065.

BOX 1-9 Follow instructions for page 1010.

BOX 10 PURPOSE: Enter the purpose of the device, i.e., destruct, separation, ignition, impact data, etc.

BOX 11 TYPE AND QTY: Enter the type and quantity of the device, i.e., 2 squibs, 5 explosive bolts, 1 SOFAR bomb, 2 solid propellants.

BOX 12 STAGE: Enter the location of the device using the stage number.

BOX 13 MFR. PART NO.: Enter the manufacturer and part number of each device.

BOX 14 INST.: Enter the ordnance item installation information using the following two-letter code:

First Letter - Installation

F - Factory Pad - Pad

I - Industrial Area

Second Letter - Agency Doing Installation

T - Test Agency S - Support Agency

BOX 15 LDS: Enter "yes" if the device has external leads prior to installation. Enter "no" if the device is a plug-in type with no external leads prior to installation.

BOX 16 LEAD-LGTH: Complete this box as follows:

Box A. SHLD: Enter "yes" or "no" in this column if the leads are shielded or unshielded, respectively. If both shielded and unshielded leads are used, enter "yes" or "no" on separate lines. Enter lengths, as specified below. (Include unit of measure used.)

Box B. UNINS: Enter the preinstallation length of the leads.

Box C. INSTL: Enter the installed length of the leads.

BOX 17 CURRENT-AMPS: Enter the following types of current in amps:

Box A. MAX NO FIRE: Enter the maximum current through the device which will fire no more than one device per thousand.

Box B. MIN FIRE: Enter the minimum current which is required to fire normally functioning devices of this type.

Box C. NORM FIRE: Enter the firing current to be used in this installation.

BOX 18 BRIDGE: Enter bridge data in Boxes 18A and 18B.

Box A. MAT: Enter the bridge material. Use BW for bridge wire, EBW for exploding bridge wire, or C for carbon.

Box B. OHMS: Enter the maximum and/or minimum impedance data in this column.

BOX 19 CLASS: Enter the class number of the ordnance item as described in the applicable "Ordnance Safety Manual" used on the program.

BOX 20 RF SAFE: Enter an "S" in this column only when the ordnance device is safe for handling and installation in the radiation environment described in applicable regulations of the launch range.

BOX 21 REMARKS: Enter any information that is related to the safe handling of devices and that may be helpful in the prevention of accidental firing. Also, use this box when additional space is needed to clarify line item on this page.



Date: 7-70

|   |             |                      |                |                  |  |
|---|-------------|----------------------|----------------|------------------|--|
| 1. CLASSIFICATION _____                                   |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. 1314 |  |
| (PAGE TITLE)<br>LAUNCH VEHICLE - ORDNANCE ITEMS DRAWING * |             | DATED                |                | 4. DATE          |  |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE         | 8. PROGRAM NO. | 9. REVISION NO.  |  |
| 10. DRAWING *   |             |                      |                |                  |  |

DS FORM 9-70  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1314—LAUNCH VEHICLE - ORDNANCE ITEMS DRAWING

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agency with information as to the location of the various ordnance items aboard the launch vehicle. Place the appropriate item number digit(s) from Page 1313 in a circle and connect it with a line and arrowhead to the location on the ordnance item.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DRAWING:** Enter a drawing of the launch vehicle in the space provided showing basic dimensions of length, station number of all field splices and separation planes, wingspan or width, body diameter, and height. Special features should also be shown. Station number locations of destruct charges and other ordnance items must be provided. All station numbers of the entire vehicle must be referenced to a common point. In the top view of the vehicle or stages, show azimuth locations of all ordnance items measured from True North with the vehicle on the launch pad in the nominal launch position. If it is desirable to increase the drawing scale, separate pages may be used for each view.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |  |  |  |  |  |                  |  |
|---|--|--|--|--|--|------------------|--|
| (PAGE TITLE)<br>LAUNCH VEHICLE - FLAME PLASMA MODEL OF THE EXHAUST PLUME* |  |  |  | 2. REPLACES PAGE(S)<br>DATED _____   |  | 3. PAGE NO. 1315 |  |
| 5. PROGRAM TITLE  |  |  |  | 8. ITEM NO. 9. TEST CODE   |  | 6. PROGRAM NO.   |  |
| 10. MODEL<br>ELECT DENSITY ( )<br>COLLISION FREQ ( )                      |  |  |  | 11. STAGE  |  | 12. ALTITUDE     |  |
| 13. PLANE<br>PITCH ( )<br>YAW ( )   |  |  |  | 14. EXIT PLANE PARAMETERS<br>A. ELECTRON DENSITY/CM <sup>3</sup><br>COLLISION FREQ SEC <sup>-1</sup> |  |                  |  |
|   |  |  |  | B. NON-TVC   |  | C. TVC ON        |  |
|   |  |  |  | D. TVC OFF   |  | E. EXPERIMENTAL  |  |
|   |  |  |  | F. THEORETICAL   |  |                  |  |

15. FLAME PLASMA MODEL

UDS FORM R 119 REPLACES FORM R 119 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

[\*This form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 1315 - LAUNCH VEHICLE - FLAME PLASMA MODEL OF THE EXHAUST PLUME

**NOTE:** This form is used for launch vehicle requirements. The data on this page will be employed by agencies to evaluate the interference that the exhaust plume will produce with the propagation of electromagnetic signals to and from the missile, so as to determine the degree of coverage that can be provided by instrumentation. The flame plasma model will be used to compute attenuation and phase shift at the various frequencies used and for the aspect angles to be encountered in powered flight.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **MODEL:** Both electron density and collision frequency contours are required for each stage. Check which applies.

BOX 11 **STAGE:** Enter the stage for which the model applies. One model for each missile stage is required. For the first stage, the model should apply to the plume structure just prior to the beginning of tailoff (or separation, for missiles designed without tailoff). For the second and higher stages, the model should apply to conditions at a time in the middle of the burning period.

BOX 12 **ALTITUDE:** Enter the altitude or range of altitudes for which the model applies.

BOX 13 **PLANE:** Enter the missile plane for which the model applies. If applicable to both planes, check both pitch and yaw.

BOX 14 **EXIT PLANE PARAMETERS:** Enter the average value of the exit plane electron density and exit plane collision frequency, and indicate whether the values are experimental or theoretical. For missile stages employing Thrust Vector Control (TVC) by fluid injection, provide the electron density and collision frequency values for both "TVC on" and "TVC off."

BOX 15 **FLAME PLASMA MODEL:** Draw contour lines of constant electron density for levels of  $10^7$ ,  $10^8$ ,  $10^9$ , etc., up to the highest level that applies; also show contours of constant collision frequency (electron collision frequency for momentum transfer) up to the highest level that applies. Each contour is to represent the locus of points for which the electron density (or collision frequency) has the value indicated.

The scale factor shall be indicated and should be suitably chosen for each stage so as to approximately fill the page for the  $10^7$  contour.

The models should be derived from gas dynamic and chemical kinetic considerations. For multiple nozzles, an equivalent single nozzle may be used. Where available, experimentally determined values of exit plane electron and collision frequency, by means of the usual two-frequency attenuation method, are preferred.

Units of measure must be identified where applicable.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |  |                      |              |                  |                 |
|--|--|----------------------|--------------|------------------|-----------------|
| (PAGE TITLE)<br>SPACECRAFT/PAYLOAD - DESCRIPTION * |  | 2. REPLACES PAGE (S) |              | 3. PAGE NO. 1320 |                 |
|  |  | DATED                |              | 4. DATE          |                 |
| 5. PROGRAM TITLE                                   |  | 6. ITEM NO.          | 7. TEST CODE | 8. PROGRAM NO.   | 9. REVISION NO. |
| 10. DESCRIPTION *                                  |  |                      |              |                  |                 |

DD FORM 1320  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1320—SPACECRAFT/PAYLOAD - DESCRIPTION

NOTE: This form is used to provide a description of the spacecraft/payload.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Enter a brief description of the spacecraft/payload. Provide a description of each module or section including all propulsion systems, if applicable.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |    |    |    |    |                                    |             |                    |  |
|--|----|----|----|----|------------------------------------|-------------|--------------------|--|
| (PAGE TITLE)<br><b>SPACECRAFT/PAYLOAD - CHARACTERISTICS*</b>   |    |    |    |    | 2. REPLACES PAGE(S)<br>DATED _____ |             | 3. PAGE NO. 1321   |  |
| 5. PROGRAM TITLE _____   |    |    |    |    | 8. ITEM NO. _____                  |             | 9. TEST CODE _____ |  |
| 6. PROGRAM NO. _____   |    |    |    |    | 7. REVISION NO. _____              |             |                    |  |
| 10. STAGE-MODULE NOMENCLATURE  | A. | B. | C. | D. | E. TOTALS                          | 16. REMARKS |                    |  |
| 11. PHYSICAL DIMENSIONS<br>A. LENGTH<br>B. DIAMETER<br>C. WIDTH - MAX.   |    |    |    |    |                                    |             |                    |  |
| 12. WEIGHTS<br>A. DRY (EMPTY - NO FUEL)<br>B. PROPELLANT OR FUEL<br>C. OXIDIZER<br>D. GASES<br>E. MISCELLANEOUS<br>F. DESTRUCT MATERIAL<br>G. LAUNCH<br>H. BURNOUT           |    |    |    |    |                                    |             |                    |  |
| 13. PROPULSION SYSTEM<br>A. TYPE ENGINE<br>B. MANUFACTURER<br>C. DESIGNATION<br>D. NUMBER OF ENGINES<br>E. SPECIFIC IMPULSE-ISP<br>F. THRUST - ENG<br>G. THRUST DURATION-SEC |    |    |    |    |                                    |             |                    |  |
| 14. PROPELLANTS AND GASES<br>A. PROPELLANT OR FUEL<br>B. OXIDIZER<br>C. GASES<br>D. GAS PRESSURE   |    |    |    |    |                                    |             |                    |  |
| 15. PERFORMANCE<br>A. RANGE<br>B. ALTITUDE<br>C. MAX VELOCITY<br>D. MAX ACCELERATION - G<br>E. TIME - T + SEC  |    |    |    |    |                                    |             |                    |  |

UDS FORM R 117 REPLACES FORM R 117 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

\*This form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 1321 - SPACECRAFT/PAYLOAD - CHARACTERISTICS

NOTE: This form is used to enter spacecraft/payload characteristics. Units of measure must be identified, where applicable.

BOX 1-9 Follow instructions for page 1010.

BOX 10 STAGE-MODULE NOMENCLATURE: Enter each stage or flight item in order (Box A, B, C, etc.) of flight sequence. Applicable totals will be entered in Box E.

BOX 11 PHYSICAL DIMENSIONS: Enter the total and per stage dimensions as requested. Box 11C will be used to list the wingspan of Cruise missiles.

BOX 12 WEIGHTS: Enter the weight data as requested. In Box 12B list the weight of the propellant or fuel. If the propellant is mixed onboard prior to combustion, list the fuel in Box 12B and the oxidizer in Box 12C. Box 12D covers all gases used for propulsion, control, pressurization, etc. Box 12E will cover, collectively, all miscellaneous items normally too numerous to mention and not covered by the other listings in this box. In Box 12H list burnout weight per stage.

BOX 13 PROPULSION SYSTEM: In Box 13A list type as liquid, solid, nuclear, etc. In Box 13E the  $I_{sp}$  value will be assumed at sea level (SL) unless otherwise noted in the applicable box.

BOX 14 PROPELLANTS AND GASES: Identify the type (name or designation) of propellants and gases used in each stage or phase. In Box 14A list the propellant or fuel. If the propellant is mixed prior to combustion, list the fuel in Box 14A and the oxidizer in Box 14B. Use Box 14D to list the pressure of the larger quantity gaseous item and identify the item in each box.

BOX 15 PERFORMANCE: After the items in Boxes 15A, 15B and 15C, and in the space provided per box, enter the unit of measure that best fits the flight particulars. Normally, range is in nautical miles, altitude is in feet and velocity is in feet per second. List in Box 15E the more applicable or appropriate time items per stage and identify, in the box, each value used, i.e., 80 (Burnout), SEP (Separation), IMP (Impact), etc.

BOX 16 REMARKS: Enter notes and pertinent operational characteristics or capabilities of the system being tested.

Date: 7-70

|  |              |                      |  |                  |  |
|--|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                        |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1322 |  |
| (PAGE TITLE)<br>SPACECRAFT/PAYLOAD - DRAWING * |              | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                               |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                                    | 9. TEST CODE | 10. DRAWING *        |  |                  |  |
|  |              |                      |  |                  |  |

DD FORM 9 3/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 3 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1322—SPACECRAFT/PAYLOAD - DRAWING

**NOTE:** This form is used to show the external characteristics of the spacecraft/payload. Include antenna locations, paint patterns, etc. Side and top views are required.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DRAWING:** Enter a drawing of the spacecraft/payload in the space provided, showing basic dimensions of length, station number of all field splices and separation planes, wingspan or width, body diameter, or height. Special features should also be shown, e.g., paint patterns, characteristic markings, and station number locations of antennas, modules, and other pertinent components. All station numbers of the spacecraft/payload must be referenced to the same common point as is the launch vehicle. In the top view show azimuth locations of all antennas measured from True North with the spacecraft/payload on the launch pad in the nominal launch position. If it is more desirable to increase the drawing scale, separate forms may be used for each view. Do not include locations of ordnance items as they will be placed on a similar drawing on Page 1324.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |                 |                |                     |              |                      |                              |            |               |                  |             |                  |                |                 |            |            |              |                |  |
|--|-----------------|----------------|---------------------|--------------|----------------------|------------------------------|------------|---------------|------------------|-------------|------------------|----------------|-----------------|------------|------------|--------------|----------------|--|
| (PAGE TITLE)<br>SPACECRAFT/PAYLOAD - ORDNANCE ITEMS DESCRIPTION* |                 |                |                     |              |                      | 2. REPLACES PAGE(S)<br>DATE: |            |               | 3. PAGE NO. 1323 |             |                  |                |                 |            |            |              |                |  |
| 5. PROGRAM TITLE   |                 |                |                     |              |                      | 6. PROGRAM NO.               |            |               | 7. REVISION NO.  |             |                  |                |                 |            |            |              |                |  |
| 8.<br>ITEM NO.   | 9.<br>TEST CODE | 10.<br>PURPOSE | 11.<br>TYPE/<br>QTY | 12.<br>STAGE | 13.<br>MFR. PART NO. | 14.<br>INST                  | 15.<br>LDS | 16. LEAD-LGTH |                  |             | 17. CURRENT-AMPS |                |                 | 18. BRIDGE |            | 19.<br>CLASS | 20.<br>RF SAFE |  |
|  |                 |                |                     |              |                      |                              |            | A.<br>SHLD    | B.<br>UNINS      | C.<br>INSTL | A.<br>MNF        | B.<br>MIN FIRE | C.<br>NORM FIRE | A.<br>MAT  | B.<br>OHMS |              |                |  |
| 21. REMARKS  |                 |                |                     |              |                      |                              |            |               |                  |             |                  |                |                 |            |            |              |                |  |

UDS FORM R 118 NOV 79 REPLACES FORM R 118 DATED JUL 77

1. CLASSIFICATION \_\_\_\_\_

[\*This form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 1323 - SPACECRAFT/PAYLOAD - ORDNANCE ITEMS DESCRIPTION

**NOTE:** This form is used for spacecraft/payload requirements. This data will provide the Support Agency with knowledge of electrically initiated ordnance items and Requesting Agency's RF radiation sources. Thus, precautions can be taken to prevent accidental function of electrically initiated ordnance items. Reference any applicable technical documents, handbooks, notes, prints, etc., on this page and describe them on page 1065.

- BOX 1-9 Follow instructions on page 1010.
- BOX 10 PURPOSE: Enter the purpose of the device, i.e., destruct, separation, ignition, impact data, etc.
- BOX 11 TYPE AND QTY: Enter the type and quantity of the device, i.e., 2 squibs, 5 explosive bolts, 1 SOFAR bomb, 2 solid propellants.
- BOX 12 STAGE: Enter the location of the device using the stage number.
- BOX 13 MFR. PART NO.: Enter the manufacturer and part number of each device.
- BOX 14 INST.: Enter the ordnance item installation information using the following two-letter code:  
First Letter - Installation  
F - Factory Pad - Pad  
I - Industrial Area  
Second Letter - Agency Doing Installation  
T - Test Agency S - Support Agency
- BOX 15 LDS: Enter "yes" if the device has external leads prior to installation. Enter "no" if the device is a plug-in type with no external leads prior to installation.

BOX 16 LEAD-LGTH: Complete this box as follows:

Box A. SHLD: Enter "yes" or "no" in this column if the leads are shielded or unshielded, respectively. If both shielded and unshielded leads are used, enter "yes" or "no" on separate lines. Enter lengths, as specified below.

Box B. UNINS: Enter the preinstallation length of the leads.

Box C. INSTL: Enter the installed length of the leads.

BOX 17 CURRENT-AMPS: Enter the following types of current in amps:

Box A. MAX NO FIRE (MNF): Enter the maximum current through the device which will fire no more than one device per thousand.

Box B. MIN FIRE: Enter the minimum current which is required to fire normally functioning devices of this type.

Box C. NORM FIRE: Enter the firing current to be used in this installation.

BOX 18 BRIDGE: Enter bridge data in Boxes 18A and 18B.

Box A. MAT: Enter the bridge material. Use BW for bridge wire, EBW for exploding bridge wire, or C for carbon.

Box B. OHMS: Enter the maximum and/or minimum impedance data in this column.

BOX 19 CLASS: Enter the Class number of the ordnance item as described in the applicable "Ordnance-Safety Manual" used on the program.

BOX 20 RF SAFE: Enter an "S" in this column only when the ordnance device is safe for handling and installation in the radiation environment described in applicable regulations of the launch range.

BOX 21 REMARKS: Enter any information that is related to the safe handling of devices and that may be helpful in the prevention of accidental firing. Also, use this box when additional space is needed to clarify line item on this page.

Date: 7-70

|   |             |              |                      |                 |                  |
|---|-------------|--------------|----------------------|-----------------|------------------|
| 1. CLASSIFICATION _____                                     |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. 1324 |
| (PAGE TITLE)<br>SPACECRAFT PAYLOAD - ORDNANCE ITEMS DRAWING |             |              | DATED                |                 | 4. DATE          |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 7. REVISION NO. |                  |
| 10. DRAWING   |             |              |                      |                 |                  |

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1324—SPACECRAFT/PAYLOAD - ORDNANCE ITEMS DRAWING

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agency with information as to the location of the various ordnance items aboard the spacecraft/payload. Place the appropriate item number digit(s) from Page 1323, in a circle and connect it with a line and arrowhead to the location on the ordnance item.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DRAWING:** Enter a drawing of the spacecraft/payload in the space provided showing basic dimensions of length, station number of all field splices and separation planes, wing-span or width, body diameter, and height. Special features should also be shown. Station number locations of destruct charges and other ordnance items must be provided. All station numbers of the spacecraft/payload must be referenced to the same common point as was the launch vehicle. In the top view, show azimuth locations of all ordnance items measured from True North with the spacecraft/payload on the launch pad in the nominal launch position. If it is desirable to increase the drawing scale, separate pages may be used for each view.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |  |                           |  |                                   |  |  |  |
|---|--|---------------------------|--|-----------------------------------|--|--|--|
| (PAGE TITLE)<br>SPACECRAFT/PAYLOAD - FLAME PLASMA MODEL OF THE EXHAUST PLUME* |  |                           |  | 2. REPLACES PAGE(S)<br>DATED      |  | 3. PAGE NO. 1325<br>4. DATE  |  |
| 5. PROGRAM TITLE  |  |                           |  | 8. ITEM NO. 9. TEST CODE          |  | 6. PROGRAM NO. 7. REVISION NO.   |  |
| 10. MODEL<br>ELECT DENSITY ( )<br>COLLISION FREQ ( )                          |  | 11. STAGE<br>12. ALTITUDE |  | 13. PLANE<br>PITCH ( )<br>YAW ( ) |  | 14. EXIT PLANE PARAMETERS<br>A. ELECTRON DENSITY E/CM <sup>3</sup><br>COLLISION FREQ SEC <sup>-1</sup><br>B. NON-TVC C. TVC ON D. TVC OFF E. EXPERIMENTAL F. THEORETICAL |  |
| 15. FLAME PLASMA MODEL  |  |                           |  |                                   |  |  |  |

UDS FORM R 119 REPLACES FORM R 119 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 1325 - SPACECRAFT/PAYLOAD - FLAME PLASMA MODEL OF THE EXHAUST PLUME

**NOTE:** This form is used for spacecraft/payload requirements. The data on this page will be employed by range agencies to evaluate the interference that the exhaust plume will produce with the propagation of electromagnetic signals to and from the missile, so as to determine the degree of coverage that can be provided by range instrumentation. The flame plasma model will be used to compute attenuation and phase shift at the various range frequencies used and for the aspect angles to be encountered in powered flight.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **MODEL:** Both electron density and collision frequency contours are required for each stage. Check which applies.

BOX 11 **STAGE:** Enter the stage for which the model applies. One model for each missile stage is required. For the first stage, the model should apply to the plume structure just prior to the beginning of tailoff (or separation, for missiles designed without tailoff). For the second and higher stages, the model should apply to conditions at a time in the middle of the burning period.

BOX 12 **ALTITUDE:** Enter the altitude or range of altitudes for which the model applies.

BOX 13 **PLANE:** Enter the missile plane for which the model applies. If applicable to both planes, check both pitch and yaw.

BOX 14 **EXIT PLANE PARAMETERS:** Enter the average value of the exit plane electron density and exit plane collision frequency, and indicate whether the values are experimental or theoretical. For missile stages employing Thrust Vector Control (TVC) by fluid injection, provide the electron density and collision frequency values for both "TVC on" and "TVC off."

BOX 15 **FLAME PLASMA MODEL:** Draw contour lines of constant electron density for levels of  $10^7$ ,  $10^8$ ,  $10^9$ , etc., up to the highest level that applies; also show contours of constant collision frequency (electron collision frequency for momentum transfer) up to the highest level that applies. Each contour is to represent the locus of points for which the electron density (or collision frequency) has the value indicated.

The scale factor shall be indicated and should be suitably chosen for each stage so as to approximately fill the page for the  $10^7$  contour.

The model's should be derived from gas dynamic and chemical kinetic considerations. For multiple nozzles, an equivalent single nozzle may be used. Where available, experimentally determined values of exit plane electron and collision frequency, by means of the usual two-frequency attenuation method, are preferred.

Units of measure must be identified where applicable.



Date: 7-70

|   |              |                            |  |                       |  |
|---|--------------|----------------------------|--|-----------------------|--|
| 1. CLASSIFICATION _____                                     |              | 2. REPLACES PAGE (S) _____ |  | 3. PAGE NO. 1400      |  |
| (PAGE TITLE)<br>VEHICLE INSTRUMENTATION SYSTEMS - GENERAL * |              |                            |  | 4. DATE _____         |  |
| 5. PROGRAM TITLE _____                                      |              |                            |  | 6. PROGRAM NO. _____  |  |
|   |              |                            |  | 7. REVISION NO. _____ |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. DISCUSSION *           |  |                       |  |
|   |              |                            |  |                       |  |

UOS FORM R 6/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1400--VEHICLE INSTRUMENTATION SYSTEMS - GENERAL

NOTE: This form is to be used to provide information of a general nature concerning instrumentation carried aboard the vehicle.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DISCUSSION: Provide, as necessary, information of a general nature concerning onboard instrumentation not contained elsewhere in the document and which will aid the Support Agency in supporting the program/mission.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |              |  |  |                        |             |                      |          |                  |             |
|--|--------------|--|--|------------------------|-------------|----------------------|----------|------------------|-------------|
| (PAGE TITLE)<br><b>FREQUENCY UTILIZATION SUMMARY</b> |              |  |  |                        |             | 2. REPLACES PAGE (S) |          | 3. PAGE NO. 1405 |             |
| 5. PROGRAM TITLE                                     |              |  |  |                        |             | 6. PROGRAM NO.       |          | 7. REVISION NO.  |             |
| 8. ITEM NO.  | 9. TEST CODE | 10. FREQUENCY<br>A. TRANSMITTED B. REC |  | 11. EMISSION CHARACTER | 12. PURPOSE | 13. GUARD BAND       | 14. TIME | 15. LOCATION     | 16. REMARKS |
|  |              |  |  |                        |             |                      |          |                  |             |

UDS FORM R 120  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1405—FREQUENCY UTILIZATION SUMMARY

**NOTE:** This form is used to list vehicle frequencies used to acquire data. It serves as a summary and is not to be considered as a request for frequencies.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **FREQUENCY:** List the transmitted and/or received frequency and state units in megahertz, kilohertz, etc.

**BOX 11** **EMISSION CHARACTER:** List the type of emission (AM, FM, CW, Pulse, etc.), bandwidth in kilohertz, and power output (average and/or peak as the case may be).

**BOX 12** **PURPOSE:** State the purpose for which the frequency is required, air/ground voice, air/ground telemetry, point-to-point voice, telemetry receivers, etc.

**BOX 13** **GUARD BAND:** State the desired guard band.

**BOX 14** **TIME:** Enter the estimated agency time in hours per test that the frequency will be used.

**BOX 15** **LOCATION:** List location of the RF transmitter/receiver whose frequencies are listed in Box 10.

**BOX 16** **REMARKS:** Enter any remarks that will further explain any of the above entries.

Date: 7-70

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1410 |  |
| PAGE TITLE<br>VEHICLE METRIC TRACKING SYSTEMS - OPERATING DESCRIPTION * |              |                      |  | 4. DATE          |  |
| 5. PROGRAM TITLE  |              |                      |  | 6. PROGRAM NO.   |  |
| 7. REVISION NO.   |              |                      |  |                  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. DESCRIPTION *    |  |                  |  |
|   |              |                      |  |                  |  |

[The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 1410-VEHICLE METRIC TRACKING SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the operation of the vehicle metric tracking system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Provide a general description of all vehicle metric tracking systems including details of subsystems with their location and function. Provide also an operational description to clarify the operation of each metric tracking system.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |  |             |  |                             |
|---|--|-------------|--|-----------------------------|
| (PAGE TITLE)<br><b>VEHICLE METRIC TRACKING SYSTEMS - TRANSPONDER CHARACTERISTICS</b>  |  |             | 2. REPLACES PAGE (S)<br>DATES  | 3. PAGE NO. 1411<br>4. DATE |
| 5. PROGRAM TITLE  |  | 6. ITEM NO. | 7. TEST CODE   | 8. PROGRAM NO.              |
| 9. REVISION NO.   |  |             |  |                             |
| 10. GENERAL INFORMATION   |  |             | 11. TRANSMITTER CHARACTERISTICS  |                             |
| <b>A. TYPE ( ) TRANSPONDER ( ) BEACON</b><br><b>B. MODEL</b><br><b>C. MFS</b><br><b>D. INTERROGATION CODE INFO</b><br>( ) SINGLE PULSE ( ) DOUBLE PULSE<br>DOUBLE PULSE SPACING<br>2 ( ) $\mu$ S<br>2 ( ) $\mu$ S<br>2 ( ) $\mu$ S<br><b>TRIPLE PULSE SPACING</b><br><b>FIRST AND SECOND PULSE</b><br>2 ( ) $\mu$ S<br>2 ( ) $\mu$ S<br>2 ( ) $\mu$ S<br><b>SECOND AND THIRD PULSE</b><br>2 ( ) $\mu$ S<br>2 ( ) $\mu$ S<br>2 ( ) $\mu$ S |  |             | <b>E. MESSAGE TYPE ( ) PAM ( ) PDM</b><br>( ) PULSE ( ) PULSE IN OUT (PRESENCE)<br>( ) OTHER MSG<br>PULSE WIDTH ( ) $\mu$ S<br>PULSE FREQUENCY ( ) PPS<br>MESSAGES PER SECOND ( )<br>RECYCLE TIME ( ) $\mu$ S<br>MESSAGE NO.<br>PULSE DIGITS<br>LENGTH ( ) $\mu$ S<br>SPACING ( ) $\mu$ S TO NEXT MESSAGE<br>CODE FORM<br><b>F. DOPPLER FEATURES</b><br><b>G. COMMAND CONTROL CODE CAPABILITIES</b><br>NO. OF COMMAND CHANNELS AVAILABLE<br>TYPE OF MODULATION.  |                             |
|   |  |             | <b>A. FREQ RANGE ( ) MHz TO ( ) MHz</b><br>( ) TUNABLE ( ) FIXED TUNED TUNED TO ( ) MHz<br><b>B. BANDWIDTH AT 3dB ( ) MHz AT 6dB ( ) MHz</b><br><b>C. EMISSION ( ) AM ( ) FM ( ) PULSE</b><br>( ) COMPOSITE NONSTANDARD<br><b>D. FREQ STABILITY <math>\pm</math> ( ) MHz/C<sup>2</sup></b><br><b>E. EXMITTER POWER-AVERAGE ( ) WATTS</b><br>PEAK ( ) WATTS<br><b>F. MAX PRF ( ) PPS</b><br><b>G. PULSE WIDTHS AT 3dB POINTS</b><br>MICROSECONDS<br><b>H. FIRED DELAY SETTINGS</b><br>MICROSECONDS<br><b>I. MAX DELAY VARIATION WITH SIGNAL STRENGTH FROM</b><br>( ) TO ( ) OF MAX SENSITIVITY OF<br>RECEIVER<br>MICROSECONDS<br><b>J. RECOVERY TIME</b><br><b>K. DOES THIS BEACON HAVE INTERROGATION LOCKOUT? ( ) YES ( ) NO</b><br><b>L. MIN FREQ SEPARATION REQUIRED BETWEEN TRANS</b><br>AND REC ( ) MHz<br><b>M. NOMINAL WARM-UP TIME ( ) MINUTES</b><br><b>N. SPECTRUM ANALYSIS REPORT NO. ( ) HAS</b><br>BEEN PROVIDED TO ( )<br>IF NOT, WILL BE AVAILABLE ON ( ) DATE<br><b>O. PLOT OF ANTENNA INPUT POWER VS. TRANSMITTER</b><br>FREQUENCY ( ) SUBMITTED. AVAILABLE ON<br>( ) DATE<br><b>P. RF LOSSES BETWEEN TRANS TERM AND ANT TERM</b><br>( ) MEASURED AT ( ) MHz |                             |

PART I  
UDS FORM R 121  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1411-VEHICLE METRIC TRACKING SYSTEMS - TRANSPONDER CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility of the vehicle-borne transponder or beacon system with range instrumentation. Separate Pages 1411, Part 1 and 1411, Part 2 should be prepared for each transponder or beacon. Some of the entries on this page apply only to CW transponders or to radar beacons and should be answered by "NA" where necessary.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **GENERAL INFORMATION:** Enter the data required. Indicate units where necessary.

**BOX 11**

**TRANSMITTER CHARACTERISTICS:** Enter the data required. Indicate units where necessary.

**NOTE:** The information required by Box 11N, Spectrum Analysis Reports, is mandatory for certain support organizations and should be provided in accordance with applicable Support Agency specifications.

**NOTE:** Transmitting systems which require extensive periods of RF checkout time will be required to be equipped with a closed-loop or non-radiating checkout device.

Date: 7-70

| 1. CLASSIFICATION  |  | 2. REPLACES PAGE (S)  |  | 3. PAGE NO. 1411   |  |
|--|--|---|--|--------------------|--|
| (PAGE TITLE)<br>VEHICLE METRIC TRACKING SYSTEMS - TRANSPONDER CHARACTERISTICS  |  | DATED   |  | 4. DATE            |  |
| 5. PROGRAM TITLE   |  | 6. ITEM NO.   |  | 7. REVISION NO.    |  |
| <b>12. RECEIVER CHARACTERISTICS</b><br>A. FREQ RANGE ( ) MHE TO ( ) MHE<br>( ) TUNABLE ( ) FIXED TUNED<br>B. INTERMEDIATE FREQ ( )<br>C. LOCAL OSCILLATOR FREQ ( ) MHE ABOVE<br>( ) MHE BELOW INTERROGATION FREQ<br>D. METHOD OF FREQ CONTROL<br>E. FREQ STAB - ( ) PCT OF ( ) MHE<br>F. REC SENSITIVITY<br>MAX ( ) AT ( ) MHE<br>MIN ( ) AT ( ) MHE<br>NOM ( ) AT ( ) MHE<br>G. SELECTIVITY (OVERALL)<br>JIS ( ) MHE<br>MOS ( ) MHE<br>MDS ( ) MHE<br>H. TYPE AGC<br>I. AGC TIME CONST ( ) US<br>J. RECOVERY TIME AT 3DB POINT ( ) US<br>K. NOMINAL WARM-UP TIME ( ) MINUTES<br>L. SPECTRUM ANALYSIS REPORT NO. ( ) HAS BEEN<br>PROVIDED TO ( )<br>IF NOT, WILL BE AVAILABLE ON ( ) DATE<br>M. RF LOSS BETWEEN REC TERM AND ANT TERM<br>( ) MEAS AT ( ) MHE |  | <b>13. ANTENNA CHARACTERISTICS</b><br>A. LOCATION<br>STA ( ) PHI ( ) DEG<br>STA ( ) PHI ( ) DEG<br>STA ( ) PHI ( ) DEG<br>STA ( ) PHI ( ) DEG<br>PHI IS THE AZIMUTH OF THE ANTENNA AS DEFINED IN<br>THE IRIS VEHICLE ANTENNA COORDINATE SYSTEM.<br>B. MODEL<br>C. TYPE<br>D. MFS<br>E. FREQ RANGE ( ) MHE TO ( ) MHE<br>( ) TUNABLE ( ) FIXED TUNED<br>F. PREDOMINANT POLARIZATION CHECK ONE:<br>REF IRIS DOC NO 111 55<br>( ) E THETA<br>( ) E PHI<br>( ) CIRC SENSE ( ) LH ( ) RH<br>( ) OTHER<br>G. MAX GAIN IN DB WITH RESPECT TO ISOTROPIC<br>( ) DB<br>H. MIN RCVR POWER LEVEL AT TERMINALS OF RCVR<br>ANT REQ TO PROVIDE THRESHOLD SIGNAL FOR<br>DESIRED DATA QUAL AT RCVR ( ) WATTS<br>I. POWER DEL TO ANT TERM AV ( ) WATTS<br>PEAK ( ) WATTS<br>J. INDICATE FORM OF ANT PATTERN SUBMITTED<br>( ) MAG TAPE ( ) TABULATED<br>( ) PAPER TAPE ( ) PLOT<br>SUBMITTED TO ( )<br>DATE SUBMITTED ( )<br>K. ANT DESC ABOVE IS USED FOR<br>( ) REC ONLY ( ) TRANS ONLY ( ) BOTH |  | <b>14. REMARKS</b> |  |

PART 3  
JCS FORM 5-121  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1411-VEHICLE METRIC TRACKING SYSTEMS - TRANSPONDER CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility of the vehicle-borne transponder or beacon system with range instrumentation. Separate Pages 1411, Part 1 and 1411, Part 2 should be prepared for each transponder or beacon. Some of the entries on this page apply only to CW transponders or to radar beacons and should be answered by "NA" where necessary.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 12** **RECEIVER CHARACTERISTICS:** Enter the data required. Indicate units where necessary.

**BOX 13** **ANTENNA CHARACTERISTICS:**

Boxes A-F: Enter the information as specified. Antenna azimuth should be given from True North when the vehicle is erected in a launch position.

Use Page 1412 and reference corresponding item numbers to provide antenna and transmission system schematic.

**Box G:** If maximum gain is greater than 12 db, indicate main lobe beamwidth in elevation and azimuth at the 3-db points in the Remarks (Box 14).

**Box H:** Enter the information as specified.

**Box I:** This information is the same as that of the transmitter power (Box 11E) less the transmission system losses (Box 11F).

**Box J:** Check the applicable block and submit antenna patterns in accordance with applicable directives of the launch range. Support Agencies requiring antenna patterns in other formats should acquire the data through their normal channels. Phasing networks and couplers associated with antenna arrays are considered part of the antenna system. Losses in these elements should be included in the antenna pattern as inherent in the pattern measurement.

**Box K:** If separate antennas are used to transmit and to receive, submit two sets of forms with Box 13 properly completed, one for each antenna system.

**BOX 14** **REMARKS:** Enter information that will further explain any of the above boxes.

**NOTE:** The information required by Boxes 12L and 13J, Spectrum Analysis Reports and Antenna Patterns, are mandatory for certain support organizations and should be provided in accordance with applicable Support Agency specifications.

Date: 7-70

|   |             |              |                      |                  |                  |
|---|-------------|--------------|----------------------|------------------|------------------|
| 1. CLASSIFICATION _____   |             |              | 2. REPLACES PAGE (S) |                  | 3. PAGE NO. 1412 |
| (PAGE TITLE)<br>VEHICLE METRIC TRACKING SYSTEMS - ANTENNA SYSTEMS * |             |              | 4. DATE              |                  | 5. DATE          |
| 6. PROGRAM TITLE  | 7. ITEM NO. | 8. TEST CODE | 9. PROGRAM NO.       | 10. REVISION NO. |                  |
| 11. DRAWING *   |             |              |                      |                  |                  |

U.S. FORM P 57C  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 1412-VEHICLE METRIC TRACKING SYSTEMS - ANTENNA SYSTEMS**

**NOTE:** This form is used to diagram the vehicle metric tracking antenna system.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DRAWING:** Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers, as applicable. A cross-section drawing showing the vehicle antenna location should be included.

Date: 7-70

|   |             |              |                      |                  |
|---|-------------|--------------|----------------------|------------------|
| 1. CLASSIFICATION _____                                     |             |              |                      |                  |
| (PAGE TITLE)<br>VEHICLE METRIC TRACKING SYSTEMS - DIAGRAM * |             |              | 2. REPLACES PAGE (S) | 3. PAGE NO. 1413 |
|   |             |              | DATES                | 4. DATE          |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 9. REVISION NO.  |
| 10. DIAGRAM *   |             |              |                      |                  |

DD FORM 1010  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1413—VEHICLE METRIC TRACKING SYSTEMS - DIAGRAM

NOTE: This form is used to describe the operation of the vehicle metric tracking system by means of sketches or diagrams.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DIAGRAM: Denote the special tracking capability information for this program or mission. Also, sketch the proposed or existing system functional design. Indicate the location of the system by stage, module, etc. Use additional sheets as necessary.

Date: 7-70

## 1. CLASSIFICATION

|   |                 |                                   |                                |
|---|-----------------|-----------------------------------|--------------------------------|
| (PAGE TITLE)<br>VEHICLE TELEMETRY SYSTEMS - OPERATING DESCRIPTION * |                 | 2. REPLACES PAGE (S)<br><br>DATED | 3. PAGE NO.<br>1420<br>4. DATE |
| 5. PROGRAM TITLE  |                 | 6. PROGRAM NO.                    | 7. REVISION NO.                |
| 8.<br>ITEM NO.  | 9.<br>TEST CODE | 10.<br>DESCRIPTION *              |                                |
|   |                 |                                   |                                |

UDS FORM R G/A  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

## Preparation Instructions: PAGE 1420—VEHICLE TELEMETRY SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the operation of the vehicle telemetry system.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10**      **DESCRIPTION:** Provide a general description of all vehicle telemetry systems including details of subsystems with their location and function. Provide also an operational description to clarify the operation of each telemetry system.



Date: 11-79

| 1. CLASSIFICATION   |  | 2. REPLACES PAGE (S)   |  | 3. PAGE NO. 1421  |  |  |  |
|---|--|--|--|---|--|--|--|
| 4. DATE   |  | 5. PROGRAM NO.   |  | 6. REVISION NO.   |  |  |  |
| 7. PROGRAM TITLE  |  | 8. ITEM NO.  |  | 9. TEST CODE  |  |  |  |
| VEHICLE TELEMETRY SYSTEMS - CHARACTERISTICS   |  |  |  |   |  |  |  |
| 10. GENERAL INFORMATION   |  | 11. TRANSMITTER CHARACTERISTICS  |  | 12. ANTENNA SYSTEM CHARACTERISTICS  |  |  |  |
| A. RF FREQUENCY<br>B. BANDWIDTH AT 100<br>C. BANDWIDTH AT 400<br>D. DEVIATION<br>E. TYPE MODULATION |  | A. LOCATION<br>B. TYPE<br>C. MODEL<br>D. MANUFACTURER<br>E. LINK FREQUENCY<br>F. TYPE OF MODULATION<br>G. BANDWIDTH AT 100<br>H. BANDWIDTH AT 400<br>I. IS THE ASSIGNED FREQUENCY MEASURABLE IN THE MODULATED LINK RF SPECTRUM<br>J. IF I, ABOVE IS NO, LIST A MEASURABLE CHARACTERISTIC FREQUENCY<br>K. INDICATE THE FIXED DIFFERENCE FROM ASSIGNED FREQUENCY<br>L. MINIMUM DEVIATION<br>M. MAXIMUM DEVIATION<br>N. FREQUENCY STABILITY<br>O. RF LOSSES BETWEEN TRANSMITTER TERM AND ANTENNA SYSTEM TERM<br>P. PCM FILTERING BEFORE EMISSION<br>Q. SPECTRUM ANALYSIS REPORT NUMBER<br>R. HAS BEEN PROVIDED TO<br>S. IF NOT, WILL BE AVAILABLE ON ( DATE ) |  | A. LOCATION OF ANTENNA OR ARRAY ELEMENTS<br>B. TYPE<br>C. MODEL<br>D. MANUFACTURER<br>E. FREQUENCY RANGE ( ) TO ( )<br>F. PREDOMINANT POLARIZATION TYPE<br>G. CIRC ( ), ELLIP ( ), LINEAR ( )<br>H. MINIMUM POWER GAIN<br>I. MAXIMUM POWER GAIN<br>J. LOCATION, IN VEHICLE BODY COORDINATES, OF PIERCING POINT P <sub>v</sub> ( )<br>K. INITIAL ORIENTATION OF P <sub>v</sub><br>L. INITIAL ORIENTATION OF P <sub>h</sub><br>M. INITIAL ORIENTATION OF P <sub>p</sub><br>N. FORM OF ANTENNA PATTERN DATA<br>O. WAS TAPE PLUS MATRIX PLOT<br>P. PUNCHED TAPE PLUS MATRIX PLOT<br>Q. OTHER<br>R. SUBMITTED TO ( )<br>S. WILL BE AVAILABLE ( ) |  | O. PATTERN PARAMETERS MEASURED<br>P. MAIN LOBE BEAM WIDTH IN DEGREES<br>Q. ELEVATION ( ) AZIMUTH ( )<br>R. EFFECTIVE RADIATED POWER ( ) WATT<br>S. SPECTRUM RESPONSE REPORT<br>T. AVAILABLE<br>U. NOT AVAILABLE<br>V. IF AVAILABLE PROVIDE FIVE COPIES<br>W. ANTENNA CONTROLLABILITY<br>X. REMARKS |  |

PART 1  
JOS FORM R 122  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1421 - VEHICLE TELEMETRY SYSTEMS - CHARACTERISTICS

**NOTE:** This form is used by the Support Agency to evaluate the compatibility of the vehicle-borne telemetry system with range instrumentation. Use a separate page 1421, parts 1 and 2, for telemetry transmitting systems with different characteristics. Five copies of the Spectrum Analysis Report and five copies of the Spectrum Response Report should be provided to the range, when available. Quantitative data furnished on this page should be measured values after nominal summing, where applicable. The data sources of measured values should be indicated by a footnote. To identify the telemetry system further, add the link number in the Page Title box.

Items A-C: Refer to a page that gives a complete circuit and component description of the antenna system.

Items A-K: Antenna data shall be presented according to IRIG Document III-65.

Item N: Check or complete the applicable blocks and submit antenna patterns in accordance with applicable directives of the launch range. Support Agencies requiring antenna patterns in other formats should acquire the data through their normal channels. Phasing networks and couplers associated with antenna arrays are considered part of the antenna system. Losses in these elements should be included in the antenna pattern as inherent in the pattern measurement.

BOX 1-9 Follow Instructions for page 1010.

BOX 10 GENERAL INFORMATION: Enter the data requested. Include details on nonconformance to Inter-Range Instrumentation Group (IRIG) standards.

BOX 11 TRANSMITTER CHARACTERISTICS:

Items A-P: Enter the data requested to describe the transmitter characteristics listed in this box.

Item Q: The information requested is mandatory and should be provided in accordance with the applicable Support Agency specifications. The range periodically publishes a list of equipments for which spectrum analysis requirements have been met. If the model number of the transmitter is identical to one listed as satisfactorily documented, complete Item Q as appropriate.

BOX 12A ANTENNA SYSTEM CHARACTERISTICS:

Items A-N: Enter the data requested to describe the antenna characteristics listed in this box.

Item M: If maximum gain is greater than 12 dB, complete Item P.

BOX 12B ANTENNA SYSTEM CHARACTERISTICS:

Items O-R: Enter the required information as appropriate.

Item S: If separate antennas are used to transmit and to receive, submit two pages, one for each antenna system, of this form with Boxes 12A and 12B properly completed.

BOX 13 REMARKS: Enter any clarifying remarks.

**NOTE:** An RF Spectrum Analysis Report for a transmitter includes such items as:

a. Actual measurements of harmonic and spurious outputs to include all signals greater than 60 dB down from the center frequency signal. Frequencies to be investigated should be in the band from 0.15 to 10,000 megahertz per second.

b. Power output curves with respect to power and frequency.

c. Measured frequency stability in actual or simulated environments.

d. Any other measurements which would assist in assessing the interference generating capability while operating in the transmitter-receiver system. MIL-STD-449 may be used as a guide for making these measurements.

Date: 11-79

|   |  |   |                      |             |                  |  |
|---|--|---|----------------------|-------------|------------------|--|
| 1. CLASSIFICATION   |  |   | 2. REPLACES PAGE (S) |             | 3. PAGE NO. 1421 |  |
| (PAGE TITLE)<br>VEHICLE TELEMETRY SYSTEMS - CHARACTERISTICS |  |   | 4. DATE              |             | 5. DATE          |  |
| 6. PROGRAM TITLE  |  |   | 7. ITEM NO.          |             | 8. TEST CODE     |  |
| 9. PROGRAM NO.  |  |   | 10. PROGRAM NO.      |             | 11. REVISION NO. |  |
| 12. GENERAL   |  | 13. PCM DATA  |                      | 14. REMARKS |                  |  |
| A. LINK FREQUENCY<br>MHz                                    |  | A. IDENTIFY SERIAL BIT RATE<br>B. INDICATE SERIAL WAVE TRAIN<br>( ) 1 LEVEL ( ) MORE THAN 1 LEVEL<br>IF MORE THAN 1 LEVEL, SHOW NUMBER OF LEVELS, WHAT EACH<br>LEVEL REPRESENTS AND AMPLITUDE OF EACH LEVEL IN PER-<br>CENTAGE OF TOTAL AMPLITUDE SPREAD.<br>C. IS MODULATION DIRECTLY ON:<br>( ) RF CARRIER ( ) SUB CARRIER<br>D. SERIAL BINARY 'ONE' CAUSES THE RF CARRIER OR SUB CARRIER<br>TO: ( ) INCREASE IN FREQUENCY ( ) DECREASE IN FREQUENCY<br>E. SERIAL WAVE TRAIN: ( ) RETURN TO ZERO<br>( ) NON-RETURN TO ZERO ( ) SPLIT PHASE ( ) OTHER<br>DESCRIBE:<br>F. WORDS PER MAJOR FRAME:<br>G. MINOR FRAMES PER MAJOR FRAME:<br>H. WORDS PER MINOR FRAME:<br>I. BITS PER WORD:<br>J. SYLLABLES PER WORD:<br>K. BITS PER SYLLABLE:<br>L. CHANNEL ASSIGNMENT:<br>M. MAJOR FRAME SYNC PATTERN:<br>N. MINOR FRAME SYNC PATTERN:<br>O. WORD SYNC PATTERN:<br>P. GIVE SYNC PATTERN OF ANY OTHER WORD WHICH DIFFERS FROM THE PAT-<br>TERN IN (O):<br>Q. FORMAT: ( ) SHORT CYCLES ( ) PREMATURE REVOLUTIONS<br>R. BINARY 'ONES' AND 'ZEROS' CONSTANT WIDTH:<br>( ) YES ( ) NO<br>S. ( ) BINARY COUNT FOR 10 PERCENT DATA LEVEL<br>( ) BINARY COUNT FOR 5 PERCENT DATA LEVEL<br>T. SIGNIFICANT BIT COUNT OCCURS:<br>( ) FIRST IN BIT STREAM ( ) LAST IN BIT STREAM |                      |             |                  |  |

PART 3  
UDS FORM R 122  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1421 - VEHICLE TELEMETRY SYSTEMS - CHARACTERISTICS

**NOTE:** This form is used by the Support Agency to evaluate the compatibility of the vehicle-borne telemetry system with range instrumentation. Use a separate page 1421, parts 1 and 2, for telemetry transmitting systems with different characteristics. Five copies of the Spectrum Analysis Report and five copies of the Spectrum Response Report should be provided the range, when available. Quantitative data furnished on this page should be measured values after normal warmup, where applicable. The data sources of unmeasured values should be indicated by a footnote. To identify the telemetry system further, add the link number in the Page Title box.

**NOTES:**

1. If PCM is not required, page 1421, part 2, is not required.
2. If a Spectrum Analysis Report is not available, the Support Agency may perform the spectrum analysis. Submit request to the Support Agency referencing this PRD/OR and this page.
3. An RF Spectrum Analysis Report for a transmitter includes such items as:
  - a. Actual measurements of harmonic and spurious outputs to include all signals greater than 60 dB down from the center frequency signal. Frequencies to be investigated should be in the band from 0.15 to 10,000 megahertz per second.
  - b. Power output curves with respect to power and frequency.
  - c. Measured frequency stability in actual or simulated environments.
  - d. Any other measurements which would assist in assessing the interference generating capability while operating in the transmitter-receiver system. MIL-STD-449 may be used as a guide for making these measurements.

- BOX 1-9 Follow instructions for page 1010.
- BOX 14 GENERAL: Enter the same link frequency shown on page 1421, part 1, Box 11, item E.
- BOX 15 PCM DATA: For PCM fill in the appropriate values.
- BOX 16 REMARKS: Enter any clarifying remarks.

Date: 7-70

|   |  |  |             |                      |                |                  |  |
|---|--|--|-------------|----------------------|----------------|------------------|--|
| 1. CLASSIFICATION _____                                       |  |  |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. 1422 |  |
| (PAGE TITLE)<br>VEHICLE TELEMETRY SYSTEMS - ANTENNA SYSTEMS * |  |  |             | DATED                |                | 4. DATE          |  |
| 5. PROGRAM TITLE  |  |  | 6. ITEM NO. | 7. TEST CODE         | 8. PROGRAM NO. | 9. REVISION NO.  |  |
| 10. DRAWING *   |  |  |             |                      |                |                  |  |

10. DRAWING \*

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 1422-VEHICLE TELEMETRY SYSTEMS - ANTENNA SYSTEMS

NOTE: This form is used to diagram the vehicle telemetry antenna system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DRAWING: Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers as applicable. A cross-section drawing showing the antenna location on the vehicle should be included.

Date: 7-70

| 1. CLASSIFICATION                                     |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. 1423 |  |
|---|-------------|--------------|----------------------|-----------------|------------------|--|
| (PAGE TITLE)<br>VEHICLE TELEMETRY SYSTEMS - DIAGRAM * |             |              | DATED                |                 | 4. DATE          |  |
| 5. PROGRAM TITLE                                      | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 7. REVISION NO. |                  |  |
| 10. DIAGRAM *   |             |              |                      |                 |                  |  |

ISS FORM R 37C  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1423--VEHICLE TELEMETRY SYSTEMS - DIAGRAM

- NOTE:** This form is used to describe the operation of the vehicle telemetry system by means of sketches or diagrams.
- BOX 1-9** Follow instructions for Page 1010.
- BOX 10** **DIAGRAM:** Denote the special telemetry capability information for this program or mission. Also, sketch the proposed or existing system functional design. Indicate the location of the system by stage, module, etc. Use additional sheets as necessary.

Date: 7-70

[illegible]

U.S. FILM 2 123  
JUL 72

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 1424-VEHICLE TELEMETRY SYSTEMS - ANALOG CHANNEL DESCRIPTION

NOTE: This form is used to provide a listing of the continuous and commutated channels of the various telemetry links.

**BOX 1-9 Follow instructions for Page 1010.**

BOX 10      IRIG: NON IRIG: Check the appropriate box. If the characteristics vary from the IRIG standards, describe the variations in the Remarks box.

**BOX 11**      **LINK:** Enter the link number, frequency, and modulation, i.e., PM/FM, PDM/FM, PAM/FM, etc., in Boxes A, B, and C.

BOX 12      CHANNEL:

**Box A:** Identify each channel by number.

Box B: Enter the Sub-Carrier Oscillator (SCO) frequency in kHz (if non-IRIG).

Box C: Enter the deviation in kHz from the center frequency (if non-IRIG) of the SCO.

Box D: If the channel contains continuous information, place an "X" in this block.

**BOX 13**      **SEGMENTS AND RATE:** If the channel contains commu-  
tated data, enter the number of segments and sampling rate  
in the appropriate block. For example, 90 x 10 means  
90 segments each sampled 10 times per second. If the  
channel has a sub commutator or sub-sub commutator,  
enter the number of segments and sampling rate in the  
appropriate block.

**BOX 14**      **REMARKS:** Enter additional descriptive information as necessary. If the channel (Box 12) is PAM, indicate if it is RTZ (Return to Zero) or NRZ (Non-Return to Zero). Indicate sync information on sub and sub-sub commutated channels.

Date: 11-79

|  |              |                      |                  |
|--|--------------|----------------------|------------------|
| 1. CLASSIFICATION  |              |                      |                  |
| (PAGE TITLE)<br>VEHICLE TELEMETRY SYSTEMS - DIGITAL FORMAT * |              | 2. REPLACES PAGE (S) | 3. PAGE NO. 1425 |
|  |              | DATES                | 4. DATE          |
| 5. PROGRAM TITLE   |              | 6. PROGRAM NO.       | 7. REVISION NO.  |
| 8. ITEM NO.  | 9. TEST CODE | 10. DESCRIPTION *    |                  |
|  |              |                      |                  |

UOS FORM R G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 1425 - VEHICLE TELEMETRY SYSTEMS - DIGITAL FORMAT

NOTE: This form is used to describe the encoding and data format of the digital telemetry systems. To identify the vehicle telemetry systems further, add the link number and frequencies in the Page Title box for those systems described on this page.

BOX 10 DESCRIPTION: Provide a description of word encoding and data format organization. Include word structure, sampling rates, sync word, etc. Provide pictorial representation of frame and subframe construction including channel identification.

BOX 1-9 Follow instructions for page 1010.

Date: 7-70

| 1. CLASSIFICATION         |  |  |  |  | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1426 |  |
|---------------------------|--|--|--|--|----------------------|--|------------------|--|
| PAGE TITLE                |  |  |  |  | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE          |  |  |  |  | 7. ITEM NO.          |  | 8. TEST CODE     |  |
| 9. PROGRAM NO.            |  |  |  |  | 10. REVISION NO.     |  |                  |  |
| 11. GENERAL INFORMATION   |  |  |  |  |                      |  |                  |  |
| 12. TRACK                 |  |  |  |  |                      |  |                  |  |
| 13. CHANNEL               |  |  |  |  |                      |  |                  |  |
| 14. SCO FREQ              |  |  |  |  |                      |  |                  |  |
| 15. INFORMATION BANDWIDTH |  |  |  |  |                      |  |                  |  |
| 16. FREQUENCY DEVIATION   |  |  |  |  |                      |  |                  |  |
| 17. TYPE DATA             |  |  |  |  |                      |  |                  |  |
| 18. REMARKS               |  |  |  |  |                      |  |                  |  |

MOD FORM R 124  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

Preparation Instructions: PAGE 1426—VEHICLE TELEMETRY SYSTEMS - DATA RECORDER CHARACTERISTICS

NOTE: This form is used to describe vehicle recorders and data that is to be recorded.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 IRIG: NON IRIG: place an "X" in the applicable space. If IRIG, there is no need to complete Boxes 14 through 16.

BOX 11 GENERAL INFORMATION: Enter the information required. Include units where necessary.

BOX 12 TRACK: Identify the recorder track on which the data in Boxes 13 and 17 are recorded.

BOX 13 CHANNEL: Identify the link/channel being recorded, if applicable.

BOX 14-16 Enter information as required. Include units as necessary.

BOX 17 TYPE DATA: Identify the type of data associated with each channel such as telemetry, voice, etc.

BOX 18 REMARKS: Enter additional information which may be required to describe the vehicle recording system adequately.

Date: 7-70

## 1. CLASSIFICATION

|   |              |                                   |                                |
|---|--------------|-----------------------------------|--------------------------------|
| (PAGE TITLE)<br>VEHICLE COMMAND SYSTEMS - OPERATING DESCRIPTION * |              | 2. REPLACES PAGE (S)<br><br>DATED | 3. PAGE NO.<br>1430<br>4. DATE |
| 5. PROGRAM TITLE  |              | 6. PROGRAM NO.                    | 7. REVISION NO.                |
| 8. ITEM NO.   | 9. TEST CODE | 10. DESCRIPTION *                 |                                |
|   |              |                                   |                                |

LOS ANGELES O G/A  
JULY 75

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

## Preparation Instructions: PAGE 1430-VEHICLE COMMAND SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the operation of the vehicle command system.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10**      **DESCRIPTION:** Provide a general description of all vehicle command systems including details of subsystems with their location and function. Provide also an operational description to clarify the operation of each command system.



Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |  |  |  |  |                          |  |
|---|--|--|--|--|--------------------------|--|
| (PAGE TITLE)<br><b>VEHICLE COMMAND SYSTEMS - CHARACTERISTICS</b>  |  |  | 1. REPLACES PAGE (S)<br>_____  |  | 3. PAGE NO. 1431         |  |
| 2. PROGRAM TITLE<br>_____   |  |  | 4. DATE<br>_____   |  | 5. PROGRAM NO.<br>_____  |  |
| 6. ITEM NO.<br>_____  |  |  | 7. TEST CODE<br>_____  |  | 8. REVISION NO.<br>_____ |  |
| 10. GENERAL INFORMATION   |  |  | 11. RECEIVER CHARACTERISTICS   |  |                          |  |
| A. TRANSMISSION OF COMMAND FUNCTIONS<br>ON-OFF ( ) CONTINUOUS ( )<br>DIGITAL ( )<br>B. NUMBER OF ON-OFF CHANNELS TO BE TRANSMITTED<br>_____<br>C. MODULATION CHARACTERISTICS<br>_____<br>D. REAL-TIME MONITORING OR TRANSMISSION COMMAND FUNCTION REQUIREMENTS<br>( ) YES ( ) NO<br>E. A FLIGHT-CONTROL CONSOLE ( ) WILL ( ) WILL NOT BE USED<br>F. DURATION OF FLIGHT DURING WHICH COMMAND IS REQUIRED<br>_____<br>G. DOES COMMAND RECEIVER HAVE REMOTE TURN-OFF CAPABILITY?<br>ON PAD ( ) YES ( ) NO<br>IN FLIGHT ( ) YES ( ) NO<br>H. DATA CHARACTERISTICS<br>INFORMATION RATE ( ) CODE BIT<br>RATE ( ) SUBCARRIER ( )<br>SYNCHRONIZATION ( )<br>I. VERIFICATION LINK<br>SAMPLE RATE ( ) SPS<br>NO. BIT MAP ( ) BITS<br>J. COMMAND FORMAT<br>_____ |  |  | A. TYPE & MODEL<br>A. MANUFACTURER<br>C. NUMBER INSTALLED<br>U. FREQ RANGE ( ) TO ( ) MHz<br>( ) TUNABLE ( ) FIXED TUNED<br>E. INTERMEDIATE FREQUENCY<br>1ST ( ) MHz 2ND ( ) MHz<br>F. LOCAL OSCILLATOR FREQUENCY ( ) ABOVE ( ) BELOW COMMAND TRANS FREQUENCY<br>G. METHOD OF FREQUENCY CONTROL<br>1ST OSC ( ) 2ND OSC ( )<br>H. FREQ STAB % ( ) PCT OF ( ) MHz<br>I. RECEIVER SENSITIVITY<br>MAX ( ) AT ( ) MHz<br>MIN ( ) AT ( ) MHz<br>NOM ( ) AT ( ) MHz<br>J. SELECTIVITY (OVERALL) 1 DB ( ) MHz<br>20 DB ( ) MHz 30 DB ( ) MHz<br>K. BANDWIDTH (FOR A GIVEN OPTIMUM SIGNAL) AT<br>5 DB ( ) MHz 10 DB ( ) MHz 20 DB ( ) MHz<br>L. DEVIATION REQUIRED + OR - ( ) MHz<br>( ) PER CHANNEL ( ) COMPOSITE<br>( ) MAXIMUM ( ) MINIMUM<br>( ) COMPRESSION ( ) NO COMPRESSION<br>( ) SET ON 1000 TONE ( ) OTHER (SPECIFY)<br>M. CAPTURE RATIO<br>N. SPURIOUS RESPONSE REJECTION ( ) DB<br>O. SIGNAL PULSE NOISE TO NOISE RATIO PLOT<br>( ) HAS BEEN PROV ( ) WILL BE AVAIL ( DATE )<br>P. A SPECTRUM ANALYSIS REPORT NO. ( ) HAS BEEN PROVIDED TO ( ) IF NOT, WILL BE AVAILABLE ON ( DATE )<br>Q. RF LOSSES BETWEEN RECV TERM AND ANTENNA TERM<br>( ) MEAS ( ) MHz<br>R. OPERATING FREQUENCY<br>_____ |  |                          |  |
| 12. REMARKS<br>_____  |  |  | _____  |  |                          |  |

PART I  
 LOS FORM R 125  
 JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1431 -VEHICLE COMMAND SYSTEMS - CHARACTERISTICS

NOTE: This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility between ground up-data or destruct command systems and the vehicle-borne systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 GENERAL INFORMATION: Enter information as specified.

BOX 11 RECEIVER CHARACTERISTICS: Enter information as specified. A signal pulse noise-to-noise ratio versus input signal in microvolts over a range of 1 to 100 microvolts is required by range agencies as are spectrum analysis reports of the receiver.

BOX 12 REMARKS: Enter in the column any information that will further explain any of the above boxes.

Date: 7-70

| 1. CLASSIFICATION   |  | 2. REPLACES PAGE (S)  |  | 3. PAGE NO. 1431 |  |
|---|--|---|--|------------------|--|
| 4. DATE   |  |   |  | 5. DATE          |  |
| 6. PROGRAM TITLE  |  | 7. ITEM NO.   |  | 8. TEST CODE     |  |
| 9. PROGRAM NO.  |  | 10. PROGRAM NO.   |  | 11. REVISION NO. |  |
| 12. ANTENNA CHARACTERISTICS   |  | 13. VERIFICATION SYSTEM   |  | 14. REMARKS      |  |
| <p>A. LOCATION</p> <p>STATION ( ) PH ( ) DEG</p> <p>STATION ( ) PH ( ) DEG</p> <p>STATION ( ) PH ( ) DEG</p> <p>PH IS THE AZIMUTH OF THE ANTENNA AS DEFINED IN THE VEHICLE ANTENNA COORDINATE SYSTEM.</p> <p>B. TYPE</p> <p>C. MODEL</p> <p>D. MANUFACTURER</p> <p>E. FREQ RANGE ( ) TO ( ) MHz</p> <p>( ) TUNABLE ( ) FIXED TUNED</p> <p>F. PREDOMINANT POLARIZATION (CHECK ONLY ONE)</p> <p>E THETA ( ) REF (WIG DOC NO. 181-1)</p> <p>L PH ( ) CIRCULAR SENSE ( ) LH ( ) RH ( ) OTHER</p> <p>G. MAXIMUM GAIN IN DB WITH RESPECT TO ISOTROPIC ( ) OR</p> <p>H. MIN SCV POWER LEVEL AT TERM OF RAY ANT REQ TO PROVIDE THRESHOLD SIGNAL FOR DESIRED PATH QUALITY AT SCV ( )</p> <p>I. FORM OF ANTENNA PATTERN SUBMITTED</p> <p>( ) MAGNETIC TAPE ( ) TABULAR ( )</p> <p>( ) PAPER TAPE ( ) PLOT</p> <p>SUBMITTED TO ( )</p> <p>DATE SUBMITTED ( )</p> <p>J. MAX ROLL WITH RESPECT TO ISOTROPIC</p> <p>K. LOSS IN TRANSMISSION LINES</p> <p>L. ANTENNA DIAPHRAGM</p> |  | <p>A. IN-FLIGHT TELEMETERED DATA WILL BE USED TO TRANSMIT COMMAND SIGNAL VERIFICATION FROM VEHICLE</p> <p>YES ( ) NO ( )</p> <p>B. LINK ( )</p> <p>C. FREQUENCY ( )</p> <p>D. FORMAT</p> <p>TRANSMITTED WORD ( )</p> <p>ASSOCIATED WORD ( )</p> <p>MAP ( )</p> <p>OTHER ( )</p> |  |                  |  |

PART 1  
105 FORM 125  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1431 -VEHICLE COMMAND SYSTEMS - CHARACTERISTICS

NOTE: This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility between ground up-data or destruct command systems and the vehicle-borne systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 13 ANTENNA CHARACTERISTICS:

Boxes A-F: Enter the information as specified. Antenna azimuth should be given from True North when the vehicle is erected in a launch position.

Use Page 1433, and reference appropriate item numbers to provide antenna and transmission system schematic.

Box G: If maximum gain is greater than 12 db, indicate main lobe beamwidth in elevation and azimuth at the 3-db points in the Remarks box.

Box H: Enter the information as specified.

Box I: Check the applicable box and submit antenna patterns in accordance with applicable directives of the launch range. Support Agencies requiring antenna patterns in other formats should acquire the data through their normal channels. Phasing networks and couplers associated with antenna arrays are considered part of the antenna system. Losses in these elements should be included in the antenna pattern as inherent in the pattern measurement.

Boxes J-L: Enter the information as specified.

BOX 14 VERIFICATION SYSTEM: Enter the information as specified.

Box A: Enter an "X" as applicable.

Box B: Enter the link identity (Telem. PCM, etc.).

Box C: Enter the frequency used.

Box D: Enter an "X" after format(s) utilized for verification.

BOX 15 REMARKS: Enter any information that will further explain any of the above entries.

Date: 7-70

|   |             |              |                      |                 |                  |
|---|-------------|--------------|----------------------|-----------------|------------------|
| 1. CLASSIFICATION _____                                     |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. 1432 |
| (PAGE TITLE)<br>VEHICLE COMMAND SYSTEMS - ANTENNA SYSTEMS * |             |              | DATED                |                 | 4. DATE          |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 9. REVISION NO. |                  |
| 10. DRAWING *   |             |              |                      |                 |                  |

DS FORM 157C  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 7 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1432—VEHICLE COMMAND SYSTEMS - ANTENNA SYSTEMS

NOTE: This form is used to diagram the vehicle command antenna systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DRAWING: Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers as applicable. A cross-section drawing showing the antenna location on the vehicle should be included.

Date: 7-70

| 1. CLASSIFICATION _____                             |             |              | 2. REPLACES PAGE (S) |                  | 3. PAGE NO. 1433 |  |
|---|-------------|--------------|----------------------|------------------|------------------|--|
| (PAGE TITLE)<br>VEHICLE COMMAND SYSTEMS - DIAGRAM * |             |              | 4. DATE              |                  | 5. DATE          |  |
| 6. PROGRAM TITLE                                    | 7. ITEM NO. | 8. TEST CODE | 9. PROGRAM NO.       | 10. REVISION NO. |                  |  |
| 10. DIAGRAM *                                       |             |              |                      |                  |                  |  |

UDS FORM R G/C  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 1433—VEHICLE COMMAND SYSTEMS - DIAGRAM

NOTE: This form is used to describe the operation of the vehicle command system by means of sketches or diagrams.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DIAGRAM: Denote the special command capability information for this program or mission. Also, sketch the proposed or existing system functional design. Indicate the location of the system by stage, module, etc. Use additional sheets as necessary.

Date: 7-70

|  |               |                      |  |                  |  |
|--|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION  |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1440 |  |
| (PAGE TITLE)<br>VEHICLE VOICE COMMUNICATIONS SYSTEMS - OPERATING DESCRIPTION * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE   |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.  | 10. TEST CODE | 11. DESCRIPTION *    |  |                  |  |
|  |               |                      |  |                  |  |

U.S. FORM 10/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1440—VEHICLE VOICE COMMUNICATIONS SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the operation of the vehicle voice communications system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Provide a general description of the vehicle voice communications system. Include block diagrams where necessary to insure a comprehensive description.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |   |  |                                   |
|---|---|--|-----------------------------------|
| (PAGE TITLE)<br><b>VEHICLE VOICE COMMUNICATIONS SYSTEMS - CHARACTERISTICS</b>   |   | 2. REPLACES PAGE(S)<br>DATE: _____   | 3. PAGE NO. 1441<br>4. DATE _____ |
| 5. PROGRAM TITLE _____  |   | 8. ITEM NO. _____  | 9. TEST CODE _____                |
|   |   | 6. PROGRAM NO. _____   | 7. REVISION NO. _____             |
| 10. TRANSMITTER CHARACTERISTICS   | 11. RECEIVER CHARACTERISTICS  | 12. ANTENNA CHARACTERISTICS  | 13. REMARKS                       |
| A. TYPE<br>B. MODEL<br>C. MFR<br>D. FREQ RANGE ( ) TO ( ) MHZ<br>E. OPERATING FREQ ( ) MHZ<br>F. TYPE MOD<br>G. BW AT 3 DB ( ) MHZ<br>MW AT 60 DB ( ) MHZ<br>H. MIN DEVIATION ( )<br>I. MAX DEVIATION ( )<br>J. FREQ STAB ± ( ) PCT<br>OF ( ) MHZ<br>K. XMITTER POWER<br>AV ( ) WATTS<br>PEAK ( ) WATTS<br>L. SPECTRUM ANALYSIS REPORT<br>NO. ( ) HAS BEEN<br>PROVIDED TO ( )<br>IF NOT, WILL BE PROVIDED<br>ON ( )<br>DATE _____<br>H. MODULATION CRITERIA | A. TYPE<br>B. MODEL<br>C. MFR<br>D. FREQ RANGE ( ) TO ( ) MHZ<br>E. OPERATING FREQ ( ) MHZ<br>F. INPUT CARRIER MOD<br>G. INTERMEDIATE FREQ ( )<br>H. OSCILLATOR FREQ<br>( ) MHZ ABOVE<br>( ) MHZ BELOW<br>I. FREQ STAB ± ( ) PCT<br>OF ( ) MHZ<br>J. SENSITIVITY<br>MAX ( ) AT ( ) MHZ<br>MIN ( ) AT ( ) MHZ<br>NOM ( ) AT ( ) MHZ<br>K. SELECTIVITY<br>3 DB ( ) MHZ<br>20 DB ( ) MHZ<br>60 DB ( ) MHZ<br>L. SPECTRUM ANALYSIS REPORT NO.<br>( ) HAS BEEN<br>PROVIDED TO ( )<br>IF NOT, WILL BE PROVIDED<br>ON ( )<br>DATE _____<br>M. RF LOSSES BETWEEN ANT TERM<br>AND RCVR TERM ( )<br>MEAS AT ( ) MHZ<br>N. DYNAMIC RANGE | A. LOCATION<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>PHI IS THE AZIMUTH OF THE ANTENNA AS<br>DEFINED IN THE IRIG VEHICLE ANTENNA<br>COORDINATING SYSTEM.<br>B. TYPE<br>C. MODEL<br>D. MFR<br>E. FREQ RANGE ( ) TO ( ) MHZ<br>F. POLARIZATION (CHECK ONE)<br>( ) E THETA<br>( ) E PHI<br>( ) CIRCULAR ( ) LH ( ) RH<br>( ) OTHER<br>G. MAXIMUM GAIN WITH RESPECT TO<br>ISOTROPIC ( ) DB<br>H. POWER TO ANT-TERM<br>AVERAGE ( ) WATTS<br>PEAK ( ) WATTS<br>I. FORM OF ANT PATTERN SUBMITTED<br>( ) MAGNETIC TAPE<br>( ) PAPER TAPE<br>( ) TABULATED<br>( ) PLOT<br>SUBMITTED TO ( )<br>DATE SUBMITTED ( )<br>J. ANT IS USED FOR ( ) RECEIVE ONLY<br>( ) XMIT ONLY ( ) BOTH |                                   |

JDS FORM R 126 REPLACES FORM R 126 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1441 - VEHICLE VOICE COMMUNICATIONS SYSTEMS - CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility of the vehicle communication system with the range equipment.

BOX 1-9 Follow instructions for page 1010.

BOX 10-11 TRANSMITTER AND RECEIVER CHARACTERISTICS: Enter the data required. Include units where necessary.

**NOTE:** The information required by Boxes 10L, 11L and 12L, Spectrum Analysis Reports, Antenna Patterns, and Measurements, is mandatory for certain support organizations and should be provided in accordance with applicable Support Agency specifications.

BOX 12 ANTENNA CHARACTERISTICS: Provide the requested data on antenna. Use page 1442, Vehicle Voice Communications Systems - Antenna Systems, and reference appropriate item numbers for system schematic.

Items A-F: Enter the data required.

Item G: If maximum gain is greater than 12 dB, indicate main lobe beamwidth in elevation and azimuth at the 3-dB points in Remarks (Box 13).

Item H: This information is the same as that of the transmitter power (Box 10K), less the transmission system losses (Box 10N).

Item I: Check the applicable box and submit antenna patterns in accordance with applicable directives of the launch range. Support Agencies requiring antenna patterns in other formats should acquire the data through their normal channels. Phasing networks and couplers associated with antenna arrays are considered part of the antenna system. Losses in these elements should be included in the antenna pattern as inherent in the pattern measurement.

Item J: If separate antennas are used to transmit and to receive, submit two pages of this form, one for each antenna system, with this item completed.

BOX 13 REMARKS: Enter additional information, such as operational mode and the use of equipment, which may be helpful in describing the characteristics of this equipment.

Date: 7-70

|  |             |              |                      |                 |                  |
|--|-------------|--------------|----------------------|-----------------|------------------|
| 1. CLASSIFICATION _____  |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. 1442 |
| (PAGE TITLE)<br>VEHICLE VOICE COMMUNICATIONS SYSTEMS - ANTENNA SYSTEMS * |             |              | DATED                |                 | 4. DATE          |
| 5. PROGRAM TITLE   | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 9. REVISION NO. |                  |
| 10. DRAWING *  |             |              |                      |                 |                  |

4-2 FORM 1-70  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1442—VEHICLE VOICE COMMUNICATIONS SYSTEMS - ANTENNA SYSTEMS

NOTE: This form is used to describe the vehicle voice communications antenna systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DRAWING: Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers as applicable. A cross-section drawing showing the antenna location on the vehicle should be included.

Date: 7-70

|  |             |              |                      |                  |
|--|-------------|--------------|----------------------|------------------|
| 1. CLASSIFICATION _____  |             |              |                      |                  |
| (PAGE TITLE)<br>VEHICLE VOICE COMMUNICATIONS SYSTEMS - DIAGRAM * |             |              | 2. REPLACES PAGE (S) | 3. PAGE NO. 1443 |
|  |             |              | DATES                | 4. DATE          |
| 5. PROGRAM TITLE   | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 9. REVISION NO.  |
| 10. DIAGRAM *  |             |              |                      |                  |

UDS FORM R G/C  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1443—VEHICLE VOICE COMMUNICATIONS SYSTEMS - DIAGRAM

NOTE: This form is used to describe the operation of the vehicle voice communications systems by means of sketches or diagrams.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DIAGRAM: Denote the special voice capability information for this program or mission. Also, sketch the proposed or existing system functional design. Indicate the location of the system by stage, module, etc. Use additional sheets as necessary.



Date: 7-70

| 1. CLASSIFICATION   |              | 2. REPLACES PAGE (S)        |  | 3. PAGE NO. 1450 |  |
|---|--------------|-----------------------------|--|------------------|--|
| (PAGE TITLE)<br>VEHICLE COMPOSITE SYSTEMS - OPERATING DESCRIPTION * |              | DATE                        |  | 4. DATE          |  |
| 5. PROGRAM TITLE  |              | 6. PROGRAM NO.              |  | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. OPERATING DESCRIPTION * |  |                  |  |
|   |              |                             |  |                  |  |

U.S. FORM 9 G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1450—VEHICLE COMPOSITE SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the operation of the vehicle composite system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 OPERATING DESCRIPTION: Provide an operating description of the vehicle composite systems. Include a description of the function and location of the subsystems. Use block diagrams where necessary to insure a comprehensive description.

Date: 11-79

| 1. CLASSIFICATION   |  | 2. REPLACES PAGE (S)   |  | 3. PAGE NO. 1451  |  |
|---|--|--|--|---|--|
| (PAGE TITLE)<br>VEHICLE COMPOSITE SYSTEMS - CHARACTERISTICS   |  | DATED  |  | 4. DATE   |  |
| 5. PROGRAM TITLE  |  | 6. ITEM NO.  |  | 7. TEST CODE  |  |
| 8. PROGRAM NO.  |  | 9. PROGRAM NO.   |  | 10. REVISION NO.  |  |
| 10. RECEIVER CHARACTERISTICS  |  | 11. TRANSMITTER CHARACTERISTICS  |  | 12. ANTENNA CHARACTERISTICS   |  |
| A. TYPE<br>B. MODEL<br>C. NPS<br>D. FREQ RANG ( ) TO ( ) MHz<br>E. OPER FREQ ( ) MHz<br>F. THRESHOLD<br>G. DYNAMIC RANGE<br>H. AGC NOISE BANDWIDTH<br>I. AGC ERROR<br>J. IF BANDWIDTH<br>K. VCO CNTR FREQ<br>L. VCO PH FREQ<br>M. VCO LINEARITY<br>N. CRYSTAL OSC CNTR FREQ ( )<br>O. CRYSTAL OSC FREQ STAB<br>P. PH DETECT LINEAR<br>Q. MODULATION PH DET OUTPUT BANDWIDTH<br>R. SPECTRUM ANALYSIS REPORT NO. ( ) HAS BEEN PROVIDED TO ( ). IF NOT, WILL BE AVAILABLE ON ( ) DATE.<br>S. RF LOSSES BETWEEN RXVRS AND ANT TERM ( ) MEAS AT ( ) MHz.<br>T. MODULATION CRITERIA |  | A. TYPE<br>B. MODEL<br>C. NPS<br>D. FREQ RANG ( ) TO ( ) MHz<br>E. OPER FREQ ( ) MHz<br>F. PHASE MODULATION DEVIATION RESPONSE LINEARITY<br>G. FREQ MODULATION DEVIATION RESPONSE LINEARITY<br>H. PH STABILITY<br>I. FREQ STAB ( ) PCT OF ( ) MHz<br>J. AMITTER POWER ( ) WATTS<br>K. BANDWIDTH AT 3dB ( ) MHz 20dB ( ) MHz<br>L. SPECTRUM ANALYSIS REPORT NO. ( ) HAS BEEN PROVIDED TO ( ). IF NOT, WILL BE AVAILABLE ( ) DATE.<br>M. RF LOSSES BETWEEN AMITTER TERM AND ANT TERM ( ) MEAS AT ( ) MHz<br>N. MODULATION CRITERIA |  | A. LOCATION<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>PHI IS THE AZIMUTH OF THE ANTENNA AS DEFINED IN THE IRIG VEHICLE ANTENNA COORDINATE SYSTEM.<br>B. TYPE<br>C. MODEL<br>D. NPS<br>E. FREQ RANG ( ) TO ( ) MHz<br>( ) TUNABLE ( ) FIXED<br>F. PREDOMINANT POLARIZATION ( ) RH ( ) LH ( ) OTHER<br>G. MAX GAIN IN DB WITH RESPECT TO ISOTROPIC ( ) DB<br>H. RF PWR PER LINE INTO ANT SYS TERM AVERAGE ( ) WATTS<br>I. INDICATE FORM OF ANT PATTERN SUB ( ) HAS TAPE ( ) TABULATION ( ) PAPER TAPE ( ) PLOT<br>J. ANT IS USED FOR ( ) REC ONLY ( ) AMIT ONLY ( ) BOTH |  |

UOS FORM R 127  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1451 - VEHICLE COMPOSITE SYSTEMS - CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with information to evaluate the compatibility of the composite system with range instrumentation.

BOX 1-9 Follow instructions for page 1010.

BOX 10 RECEIVER CHARACTERISTICS:

Items A-Q: Enter the data as required to describe the receiver characteristics listed in this column.

Item R: The information required by this item is mandatory and should be provided in accordance with the applicable range specifications.

Item S: State the units for the loss.

BOX 11 TRANSMITTER CHARACTERISTICS:

Items A-K: Enter the data as required to describe the transmitter characteristics listed in this column.

Item L: The information required by this item is mandatory and should be provided in accordance with the applicable range specifications.

Item M: Enter value and units for the loss.

Item N: Enter modulation criteria in the form of index rating.

BOX 12 ANTENNA CHARACTERISTICS:

Items A-F: Enter the data required to describe the antenna characteristics listed in this column. Antenna azimuth should be given from True North when the vehicle is erected in a launch position.

Use page 1454, Vehicle Composite Systems - Antenna Systems, with reference to appropriate item numbers, to provide antenna and transmission system schematic.

Item G: If maximum gain is greater than 12 dB, indicate main lobe beamwidth in elevation and azimuth at the 3-dB points in the Remarks (Box 13).

Item H: This information is the same as that of transmitter power (Box 11J) less the transmission system losses (Box 11M).

Item I: Check the applicable box and submit antenna patterns in accordance with applicable directives of the launch range. Support Agencies requiring antenna patterns in other formats should acquire the data through their normal channels. Phasing networks and couplers associated with antenna arrays are considered part of the antenna system. Losses in these elements should be included in the antenna pattern as inherent in the pattern measurement.

Item J: Check the appropriate block. If separate antennas are used to transmit and to receive, submit two pages of this form, one for each antenna system, with this item properly completed.

BOX 13 REMARKS: Enter any clarifying remarks.

Date: 7-70

| 1. CLASSIFICATION  |  |  |  | 2. REPLACES PAGE (S)  |  | 3. PAGE NO. 1452 |  |
|--|--|--|--|---|--|------------------|--|
| (PAGE TITLE)   |  |  |  | 4. DATE   |  | 5. DATE          |  |
| VEHICLE COMPOSITE SYSTEMS - RECEIVED DATA CHARACTERISTICS  |  |  |  | 6. PROGRAM NO.  |  | 7. REVISION NO.  |  |
| 8. PROGRAM TITLE   |  | 9. ITEM NO.  |  | 10. TEST CODE   |  | 11. PROGRAM NO.  |  |
| 12. VOICE COMMUNICATIONS   |  | 13. RANGING  |  | 14. RECEIVED DATA   |  | 15. REMARKS      |  |
| A. SUBCARRIER<br>UP VOICE<br>B. MODULATION<br>C. BANDWIDTH<br>(UP VOICE)<br>100<br>200<br>400<br>D. DEVIATION<br>MAXIMUM<br>MINIMUM<br>E. GUARD BAND<br>UPPER<br>LOWER<br>F. NOISE BAND WIDTH<br>SUBCARRIER ( ) KHZ<br>VOICE ( ) KHZ<br>G. S/N SUBCARRIER-PREDETECTION |  | A. TYPE<br>B. MODULATION<br>C. BANDWIDTH<br>100<br>200<br>400<br>D. DEVIATION<br>MAXIMUM<br>MINIMUM<br>E. GUARD BAND<br>UPPER<br>LOWER<br>F. BIT RATE ( ) BIT/SEC<br>G. CLOCK RATE ( ) BIT/SEC |  | A. MODULATION<br>B. SUBCARRIER FREQ.<br>C. BANDWIDTH<br>100<br>200<br>400<br>D. DEVIATION<br>MAXIMUM<br>MINIMUM<br>E. GUARD BAND<br>UPPER<br>LOWER<br>F. INFORMATION RATE ( ) BIT/SEC<br>G. CODE BIT RATE ( ) BIT/SEC<br>H. SYNCHRONIZATION ( ) KHZ<br>I. DATA FORMAT |  |                  |  |

UDS FORM R 128  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1452-VEHICLE COMPOSITE SYSTEMS - RECEIVED DATA CHARACTERISTICS

NOTE: This form is used to describe the data that will be received by the vehicle composite system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 VOICE COMMUNICATIONS: Enter the voice communication data as required in this column.

BOX 11 RANGING: Enter the ranging data as requested.

BOX 12

RECEIVED DATA: Enter the received data as requested in this column. Under Item I, identify the type of command data, e.g., real time, computer data word, time word, etc. Under each type of command data enter the following information:

Number of words \_\_\_\_\_ bits  
 Vehicle Coding Address \_\_\_\_\_ bits  
 Systems Coding Address \_\_\_\_\_ bits  
 Functional Word \_\_\_\_\_ bits

BOX 13

REMARKS: Enter any clarifying remarks or additional data in this column.

Date: 7-70

1. CLASSIFICATION

|  |  |   |  |  |  |
|--|--|---|--|--|--|
| PAGE TITLE:<br><b>VEHICLE COMPOSITE SYSTEMS - TRANSMITTED DATA CHARACTERISTICS</b>   |  | 2. REPLACES PAGE (S)<br>DATED   |  | 3. PAGE NO.<br>1453  |  |
| 5. PROGRAM TITLE   |  | 6. ITEM NO.   |  | 7. REVISION NO.  |  |
| 10. TELEMETRY  |  | 11. VOICE COMMUNICATIONS  |  | 12. TELEVISION   |  |
| A. SUBCARRIER FREQ.<br>B. MODULATION<br>C. BANDWIDTH<br>3 DB<br>30 DB<br>60 DB<br>D. GUARD BAND<br>UPPER<br>LOWER<br>E. DEVIATION<br>MAXIMUM<br>MINIMUM<br>F. CODING<br>G. WAVEFORM<br>( ) RE ( ) NRZL ( ) NRZ<br>( ) NRZM<br>H. DATA FORMAT (MIN MODE)<br>BIT RATE ( ) K BIT/SEC<br>WORD STRUCTURE ( ) BITS<br>PRIME FRAME ( ) WORD/PP<br>SUBFRAME ( ) SP/PP<br>I. MODE |  | A. SUBCARRIER FREQ.<br>B. DOWN VOICE<br>C. MODULATION<br>D. BANDWIDTH<br>3 DB<br>30 DB<br>60 DB<br>E. DEVIATION<br>MAXIMUM<br>MINIMUM<br>F. GUARD BAND<br>UPPER<br>LOWER<br>G. MODE |  | A. TYPE<br>B. MODULATION<br>C. BANDWIDTH<br>(DOWN)<br>3 DB<br>30 DB<br>60 DB<br>D. DEVIATION<br>MAXIMUM<br>MINIMUM<br>E. GUARD BAND<br>UPPER<br>LOWER<br>F. BIT RATE ( ) BIT/SEC<br>G. CLOCK RATE ( ) BIT/SEC<br>H. MODE |  |
| 14. REMARKS  |  |   |  |  |  |

1. CLASSIFICATION

Preparation Instructions: PAGE 1453—VEHICLE COMPOSITE SYSTEMS - TRANSMITTED DATA CHARACTERISTICS

NOTE: This form is used to describe the data that will be transmitted by the vehicle composite system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 TELEMETRY: Enter the characteristics of the transmitted telemetry data as specified. Indicate units where necessary.

BOX 11 VOICE COMMUNICATIONS: Enter the voice communications data as required in this column. Indicate frequencies in kilohertz, megahertz, etc.

BOX 12 RANGING: Enter the ranging data as requested in this column.

BOX 13 TELEVISION: Enter the data as required. Use Pages 1463 and 1468 to describe the vehicle television system format.

BOX 14 REMARKS: Enter any clarifying remarks or additional requirements in this column.

Date: 7-70

|   |             |              |                      |                 |                  |
|---|-------------|--------------|----------------------|-----------------|------------------|
| 1. CLASSIFICATION _____                                       |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. 1454 |
| (PAGE TITLE)<br>VEHICLE COMPOSITE SYSTEMS - ANTENNA SYSTEMS * |             |              | 4. DATE              |                 |                  |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 9. REVISION NO. |                  |
| 10. DRAWING *   |             |              |                      |                 |                  |

LOS FORM R R/C  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1454—VEHICLE COMPOSITE SYSTEMS - ANTENNA SYSTEMS

NOTE: This form is used to describe the vehicle composite systems antenna systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DRAWING: Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers as applicable. A cross-section drawing showing the antenna location of the vehicle should be included.

Date: 7-70

|   |  |  |                      |              |                  |                 |
|---|--|--|----------------------|--------------|------------------|-----------------|
| 1. CLASSIFICATION _____                               |  |  | 2. REPLACES PAGE (S) |              | 3. PAGE NO. 1455 |                 |
| (PAGE TITLE)<br>VEHICLE COMPOSITE SYSTEMS - DIAGRAM * |  |  | 4. DATE              |              |                  |                 |
| 5. PROGRAM TITLE                                      |  |  | 6. ITEM NO.          | 7. TEST CODE | 8. PROGRAM NO.   | 9. REVISION NO. |
| 10. DIAGRAM *   |  |  |                      |              |                  |                 |

UOS FORM R G/C  
JULY70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1455--VEHICLE COMPOSITE SYSTEMS - DIAGRAM

NOTE: This form is used to describe the operation of the vehicle composite systems by means of sketches or diagrams.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DIAGRAM: Denote the special composite systems capability information for this program or mission. Also, sketch the proposed or existing system functional design. Indicate the location of the system by stage, module, etc. Use additional sheets as necessary.

Date: 7-70

## 1. CLASSIFICATION

|  |               |         |             |               |                              |             |                             |  |
|--|---------------|---------|-------------|---------------|------------------------------|-------------|-----------------------------|--|
| (PAGE TITLE)<br><b>VEHICLE COMPOSITE SYSTEMS - OPERATING MODES</b> |               |         |             |               | 1. REPLACE PAGE (S)<br>DATED |             | 3. PAGE NO. 1456<br>4. DATE |  |
| 2. PROGRAM TITLE   |               |         |             |               | 6. PROGRAM NO.               |             | 7. REVISION NO.             |  |
| 8. RECEIVED DATA LINKS   |               |         |             |               | 11. TRANSMITTED DATA LINKS   |             |                             |  |
| 9. ITEM NO.  | 10. TEST CODE | A. MODE | B. FUNCTION | C. MODULATION | A. MODE                      | B. FUNCTION | C. MODULATION               |  |
|  |               |         |             |               |                              |             |                             |  |
| 12. NOTES  |               |         |             |               |                              |             |                             |  |

100 5000 2 172  
JULY 72

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 1456--VEHICLE COMPOSITE SYSTEMS - OPERATING MODES

**NOTE:** This form is used to summarize the modes of operation of the vehicle composite system and the type of data that will be received and transmitted during these different modes of operation.

BOX 1-9 Follow instructions for Page 1010.

BOX 10      RECEIVED DATA LINKS:

Box A. MODE: Enter the applicable operating mode of the received data link.

Box B. FUNCTION: Enter the functions (command, ranging, etc.) of the received data link in the operating mode.

Box C. MODULATION: Enter the type and index rating of modulation that will be utilized.

BOX 11 TRANSMITTED DATA LINKS:

Box A. MODE: Enter the applicable operating mode of the transmitted data link.

**Box B. FUNCTION:** Enter the functions (command, ranging, etc.) of the transmitted data in the transmitted data link.

Box C. MODULATION: Enter the type and index rating of modulation that will be utilized.

BOX 12

REMARKS: This space is provided for any additional information that may be required.

Date: 7-70

| 1. CLASSIFICATION  |  |           |             | 2. REPLACES PAGE (S) |                           | 3. PAGE NO. 1457        |               |
|--|--|-----------|-------------|----------------------|---------------------------|-------------------------|---------------|
| PAGE TITLE: VEHICLE COMPOSITE SYSTEMS - DATA RECORDER CHARACTERISTICS *  |  |           |             | DATE                 |                           | 4. DATE                 |               |
| 5. PROGRAM TITLE   |  |           |             | 6. ITEM NO.          |                           | 7. TEST CODE            |               |
| 8. PROGRAM NO.   |  |           |             | 9. PROGRAM NO.       |                           | 10. REVISION NO.        |               |
| 11. ( ) IRIG ( ) NON IRIG  |  |           |             |                      |                           |                         |               |
| 12. GENERAL INFORMATION  |  | 13. TRACK | 14. CHANNEL | 15. SCO FREQ         | 16. INFORMATION BANDWIDTH | 17. FREQUENCY DEVIATION | 18. TYPE DATA |
| A. NO.<br>B. TYPE<br>C. MODEL<br>D. MFG<br>E. RECORD RATE (IPS)<br>F. RECORDING TIME CAPABILITY<br>G. PLAYBACK RATE (IPS)<br>H. PLAYBACK LINK CHANNEL<br>I. TIME(S) OF PLAYBACK SCHEDULED ( ) COMMAND ( )<br>J. LENGTH OF PLAYBACK TIME<br>K. DESCRIPTION OF PLAYBACK DATA |  |           |             |                      |                           |                         |               |
| 19. REMARKS  |  |           |             |                      |                           |                         |               |

1. CLASSIFICATION

\* The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

Preparation Instructions: PAGE 1457—VEHICLE COMPOSITE SYSTEMS - DATA RECORDER CHARACTERISTICS

NOTE: This form is used to describe vehicle recorders and data that is to be recorded.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 IRIG: NON IRIG: Place an "X" in the applicable space. If IRIG, there is no need to complete Boxes 15 through 17.

BOX 11 GENERAL INFORMATION: Enter the information required. Include units where necessary.

BOX 12 TRACK: Identify the recorder track on which the data in Boxes 13 to 17 is recorded.

BOX 13 CHANNEL: Identify the link/channel being recorded, if applicable.

BOX 14-16 Enter information as required. Include units as necessary.

BOX 17 TYPE DATA: Identify the type of data associated with each channel such as telemetry, voice, etc.

BOX 18 REMARKS: Enter additional information which may be required to describe the vehicle recording system adequately.



Date: 7-70

## 1. CLASSIFICATION

|   |              |                                  |                                 |
|---|--------------|----------------------------------|---------------------------------|
| (PAGE TITLE)<br>LAUNCH VEHICLE TELEVISION SYSTEMS - OPERATING DESCRIPTION * |              | 3. REPLACES PAGE (S)<br><br>DATE | 2. PAGE NO. 1460<br><br>4. DATE |
| 5. PROGRAM TITLE  |              | 6. PROGRAM NO.                   | 7. REVISION NO.                 |
| 8. ITEM NO.   | 9. TEST CODE | 10. DESCRIPTION *                |                                 |
|   |              |                                  |                                 |

UDS FORM R G/A  
JULY 70

## 1. CLASSIFICATION

[The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 1460-LAUNCH VEHICLE TELEVISION SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the launch vehicle television systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Provide a general description of the launch vehicle television systems. Include an operating description detailing the function and location of each subsystem.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |  |   |  |   |  |
|---|--|---|--|---|--|
| (PAGE TITLE)<br><b>LAUNCH VEHICLE TELEVISION SYSTEMS - CHARACTERISTICS*</b>   |  | 2. REPLACES PAGE(S)<br>DATE:  |  | 3. PAGE NO. 1461  |  |
| 5. PROGRAM TITLE  |  | 8. ITEM NO.   |  | 9. TEST CODE  |  |
|   |  | 6. PROGRAM NO.  |  | 7. REVISION NO.   |  |
| 10. GENERAL INFORMATION   |  | 11. TRANSMITTER CHARACTERISTICS   |  | 12. ANTENNA CHARACTERISTICS   |  |
| <b>A. VIDEO CHARACTERISTICS</b><br>VIDEO BANDWIDTH<br>GRAY SCALE<br>ASPECT RATIO<br>SNR RATIO<br><b>B. SIGNAL FORMAT</b><br>1. LINES/FRAMES<br>VERTICAL BLANKING ( ) MICROSEC<br>HORIZ BLANKING ( ) MICROSEC<br>HORIZ SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>VERTICAL SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>FRAME RATE ( ) FRAMES/SEC<br>VERTICAL RESOLUTION ( ) LINES<br>2. LINES/FRAMES<br>VERTICAL BLANKING ( ) MICROSEC<br>HORIZ BLANKING ( ) MICROSEC<br>HORIZ SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>VERTICAL SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>FRAME RATE ( ) FRAMES/SEC<br>VERTICAL RESOLUTION ( ) LINES<br><b>C. CAMERA SIGNAL COUPLED TO PREMOD<br/>         PROCESSOR</b><br>AC ( ) DC ( ) |  | <b>A. TYPE</b><br><b>B. MODEL</b><br><b>C. MFR.</b><br><b>D. FREQUENCY RANGE ( ) TO ( ) MHZ</b><br><b>E. OPERATING FREQUENCY ( ) MHZ</b><br><b>F. TYPE MODULATION</b><br><b>G. BANDWIDTH AT</b> 3 DB ( ) KHZ<br>20 DB ( ) KHZ<br>60 DB ( ) KHZ<br><b>H. MAXIMUM DEVIATION ( ) KHZ</b><br><b>I. FREQUENCY STABILITY + OR - ( ) PCT<br/>         OF ( ) MHZ</b><br><b>J. TRANSMITTER POWER</b><br>AV ( ) WATTS<br>PEAK ( ) WATTS<br><b>K. SPECTRUM ANALYSIS REPORT NO. ( )</b><br>HAS BEEN PROVIDED TO ( ). IF<br>NOT WILL BE AVAILABLE ON ( ) DATE<br><b>L. MODULATION CRITERIA</b><br><b>M. RF LOSSES BETWEEN TRANSMITTER AND ANTENNA</b><br>TERM ( ) MEAS AT ( ) MHZ |  | <b>A. LOCATION</b><br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>PHI IS THE AZIMUTH OF THE ANTENNA AS DEFINED<br>IN THE IRIG VEHICLE ANTENNA COORDINATE SYSTEM.<br><b>B. TYPE</b><br><b>C. MODEL</b><br><b>D. MFR.</b><br><b>E. FREQ RANGE ( ) TO ( ) MHZ</b><br>( ) TUNABLE ( ) FIXED TUNED<br><b>F. PREDOMINANT POLARIZATION (CHECK ONE)</b><br>( ) E THETA<br>( ) CIRCULAR SENSE ( ) LH ( ) RH<br>( ) OTHER<br><b>G. MAX GAIN WITH RESPECT TO ISOTROPIC</b><br>( ) DB<br><b>H. POWER DELIVERY TO ANTENNA TERMINALS</b><br>AV ( ) WATTS<br>PEAK ( ) WATTS<br><b>I. FORM OF ANT PATTERN SUBMITTED</b><br>( ) MAGNETIC TAPE ( ) TABULATED<br>( ) PAPER TAPE ( ) PLOT<br>SUBMITTED TO ( )<br>DATE SUBMITTED ( ) |  |
| 13. REMARKS   |  |   |  |   |  |

UDS FORM R 131 REPLACES FORM R 131 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is a multipurpose form. The User is required  
to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 1461 - LAUNCH VEHICLE TELEVISION SYSTEMS - CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility of the vehicle-borne television system with the network receivers.

BOX 1-9 Follow instructions for page 1010.

BOX 10 GENERAL INFORMATION: Make entries as applicable. Include units where necessary.

BOX 11 TRANSMITTER CHARACTERISTICS: Make entries as applicable. Include units where necessary.

**NOTE:** The information required in Boxes 11K and 12I, Spectrum Analysis and Antenna Patterns, is mandatory for certain support organizations and should be provided in accordance with the applicable Support Agency specifications.

BOX 12 ANTENNA CHARACTERISTICS:

Items A-F: Self-explanatory.

Item G: If maximum gain is greater than 12 dB, indicate main lobe beamwidth in elevation and azimuth at the 3-dB points in Remarks (Box 13).

Item H: This information is the same as that of the transmitter power (Box 11J) less the transmission system losses (Box 11M).

Item I: Networks and couplers associated with antenna arrays which are part of the antenna losses should be included in the antenna pattern or be made inherent in the pattern measurement.

BOX 13 REMARKS: Enter any clarifying remarks.

Date: 7-70

|   |                   |                            |                      |                       |
|---|-------------------|----------------------------|----------------------|-----------------------|
| 1. CLASSIFICATION _____   |                   | 2. REPLACES PAGE (S) _____ |                      | 3. PAGE NO. 1462      |
| (PAGE TITLE)<br>LAUNCH VEHICLE TELEVISION SYSTEMS - ANTENNA SYSTEMS * |                   | DATED _____                |                      | 4. DATE _____         |
| 5. PROGRAM TITLE _____  | 6. ITEM NO. _____ | 7. TEST CODE _____         | 8. PROGRAM NO. _____ | 9. REVISION NO. _____ |
| 10. DRAWING *   |                   |                            |                      |                       |

UOS FORM R 9/0  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 3 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1462—LAUNCH VEHICLE TELEVISION SYSTEMS - ANTENNA SYSTEMS

NOTE: This form is used to diagram the launch vehicle television antenna systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DRAWING: Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers as applicable. A cross-section drawing showing the vehicle antenna location should be included.

Date: 7-70

| 1. CLASSIFICATION   |  |             | 2. REPLACES PAGE (S)                           |                | 3. PAGE NO. 1463 |  |
|---|--|-------------|--|----------------|------------------|--|
| (PAGE TITLE)<br>LAUNCH VEHICLE TELEVISION SYSTEMS - FORMAT DESCRIPTION* |  |             | DATED  |                | 4. DATE          |  |
| 5. PROGRAM TITLE  |  | 6. ITEM NO. | 7. TEST CODE                                   | 8. PROGRAM NO. | 9. REVISION NO.  |  |
| 10. COMPOSITE WAVEFORM  |  |             | 11. SECTION DETAIL - VERTICAL BLANK AND SYNC   |                |                  |  |
| 11. SYNC FORMAT INFORMATION   |  |             | 12. SECTION DETAIL - HORIZONTAL BLANK AND SYNC |                |                  |  |
| A. FUNCTION   |  | B. VALUE    |  |                |                  |  |
| LINE FREQUENCY  |  | ( ) LPP     |  |                |                  |  |
| FRAME RATE  |  | ( ) FPS     |  |                |                  |  |
| SYNC FREQUENCY  |  | ( ) KHZ     |  |                |                  |  |
| VERTICAL SYNC   |  | ( ) M SEC   |  |                |                  |  |
| LINE PERIOD   |  | ( ) M SEC   |  |                |                  |  |
| HORIZONTAL SYNC   |  | ( ) M SEC   |  |                |                  |  |
| FRONT PORCH   |  | ( ) M SEC   |  |                |                  |  |
| BACK PORCH  |  | ( ) M SEC   |  |                |                  |  |
| S-WHITE TO BLACK SIGNAL AMPLITUDE                                       |  | ( ) VOLTS   |  |                |                  |  |
| SYNC AMPLITUDE  |  | ( ) VOLTS   |  |                |                  |  |
| D.C. OFFSET   |  | ( ) VOLTS   |  |                |                  |  |
| 13. REMARKS   |  |             | 14. SECTION DETAIL - LINE PERIOD               |                |                  |  |
|   |  |             | 15. SECTION DETAIL                             |                |                  |  |

NS FORM 132  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

Preparation Instructions: PAGE 1463—LAUNCH VEHICLE TELEVISION SYSTEMS — FORMAT DESCRIPTION

NOTE: This form is used for launch vehicle requirements.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 COMPOSITE WAVEFORM: Sketch a composite video signal showing a maximum white and black amplitudes. The following should appear on the sketch from left to right:

- (1) Horizontal sync
- (2) One line of video
- (3) Horizontal and vertical sync
- (4) One line of video and horizontal sync

BOX 11 SYNC FORMAT INFORMATION: Complete the table with the applicable information.

BOX 12 SECTION DETAIL—VERTICAL BLANK AND SYNC: Sketch a vertical sync signal and identify the time intervals.

BOX 13 SECTION DETAIL—HORIZONTAL BLANK AND SYNC: Sketch a horizontal sync signal and identify the time intervals.

BOX 14 SECTION DETAIL—LINE PERIOD: Sketch a line period of the signal in Box 10. Specify the time interval and the relative amplitude of the video signal (white to black) to sync signal.

BOX 15 SECTION DETAIL: Use for additional sketches as appropriate.

BOX 16 REMARKS: Enter brief explanatory remarks as required.

Date: 7-70

|                         |               |                      |  |                  |  |
|-------------------------|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____ |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1465 |  |
| 4. DATE                 |               | 5. PROGRAM NO.       |  | 6. DATE          |  |
| 7. PROGRAM TITLE        |               | 8. PROGRAM NO.       |  | 9. REVISION NO.  |  |
| 10. ITEM NO.            | 11. TEST CODE | 12. DESCRIPTION *    |  |                  |  |
|                         |               |                      |  |                  |  |

DD FORM 100-10  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 4 and 5. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1465—SPACECRAFT/PAYLOAD TELEVISION SYSTEMS - OPERATING DESCRIPTION

NOTE: This form is used to describe the spacecraft/payload television systems operation.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Provide a general description of the spacecraft/payload television systems. include an operating description detailing the function and location of each subsystem.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |  |  |              |  |  |
|--|--|--|--------------|--|--|
| (PAGE TITLE)<br>SPACECRAFT/PAYLOAD TELEVISION SYSTEMS - CHARACTERISTICS*   |  | 2. REPLACES PAGE(S)<br>DATED _____   |              | 3. PAGE NO. 1466   |  |
| 5. PROGRAM TITLE   |  | 8. ITEM NO.  | 9. TEST CODE | 6. PROGRAM NO.   |  |
|  |  |  |              | 7. REVISION NO.  |  |
| 10. GENERAL INFORMATION  |  | 11. TRANSMITTER CHARACTERISTICS  |              | 12. ANTENNA CHARACTERISTICS  |  |
| A. VIDEO CHARACTERISTICS<br>VIDEO BANDWIDTH<br>GRAY SCALE<br>ASPECT RATIO<br>SNR RATIO<br>B. SIGNAL FORMAT<br>1. LINES/FRAMES<br>VERTICAL BLANKING ( ) MICROSEC<br>HORIZ BLANKING ( ) MICROSEC<br>HORIZ SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>VERTICAL SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>FRAME RATE ( ) FRAMES/SEC<br>VERTICAL RESOLUTION ( ) LINES<br>2. LINES/FRAMES<br>VERTICAL BLANKING ( ) MICROSEC<br>HORIZ BLANKING ( ) MICROSEC<br>HORIZ SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>VERTICAL SYNC ( ) MICROSEC OF DC<br>LEVEL BLACK-TO-WHITE SIGNAL<br>FRAME RATE ( ) FRAMES/SEC<br>VERTICAL RESOLUTION ( ) LINES<br>C. CAMERA SIGNAL COUPLED TO PREMOD<br>PROCESSOR<br>AC ( ) DC ( ) |  | A. TYPE<br>B. MODEL<br>C. MFR.<br>D. FREQUENCY RANGE ( ) TO ( ) MHZ<br>E. OPERATING FREQUENCY ( ) MHZ<br>F. TYPE MODULATION<br>G. BANDWIDTH AT<br>3 DB ( ) KHZ<br>20 DB ( ) KHZ<br>60 DB ( ) KHZ<br>H. MAXIMUM DEVIATION ( ) KHZ<br>I. FREQUENCY STABILITY + OR - ( ) PCT<br>OF ( ) MHZ<br>J. TRANSMITTER POWER<br>AV ( ) WATTS<br>PEAK ( ) WATTS<br>K. SPECTRUM ANALYSIS REPORT NO. ( )<br>HAS BEEN PROVIDED TO ( ) IF<br>NOT WILL BE AVAILABLE ON ( ) DATE<br>L. MODULATION CRITERIA<br>M. IF LOSSES BETWEEN TRANSMITTER AND ANTENNA<br>TERM ( ) MEAS AT ( ) MHZ |              | A. LOCATION<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>STATION ( ) PHI ( ) DEG<br>PHI IS THE AZIMUTH OF THE ANTENNA AS DEFINED<br>IN THE IRIG VEHICLE ANTENNA COORDINATE SYSTEM.<br>B. TYPE<br>C. MODEL<br>D. MFR.<br>E. FREQ RANGE ( ) TO ( ) MHZ<br>( ) TUNABLE ( ) FIXED TUNED<br>F. PREDOMINANT POLARIZATION (CHECK ONE)<br>( ) E THETA<br>( ) CIRCULAR SENSE ( ) LH ( ) RH<br>( ) OTHER<br>G. MAX GAIN WITH RESPECT TO ISOTROPIC<br>( ) DB<br>H. POWER DELIVERY TO ANTENNA TERMINALS<br>AV ( ) WATTS<br>PEAK ( ) WATTS<br>I. FORM OF ANT PATTERN SUBMITTED<br>( ) MAGNETIC TAPE ( ) TABULATED<br>( ) PAPER TAPE ( ) PLOT<br>SUBMITTED TO ( )<br>DATE SUBMITTED ( ) |  |
| 13. REMARKS  |  |  |              |  |  |

UDS FORM R 131 REPLACES FORM R 131 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is a multipurpose form. The User is required  
to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 1466 - SPACECRAFT/PAYLOAD TELEVISION SYSTEMS - CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with the information to evaluate the compatibility of the vehicle-borne television system with the network receivers.

BOX 1-9 Follow instructions for page 1010.

BOX 10 GENERAL INFORMATION: Make entries as applicable. Include units where necessary.

BOX 11 TRANSMITTER CHARACTERISTICS: Make entries as applicable. Include units where necessary.

**NOTE:** The information required in Boxes 11K and 12I, Spectrum Analysis and Antenna Patterns, is mandatory for certain support organizations and should be provided in accordance with the applicable Support Agency specifications.

BOX 12 ANTENNA CHARACTERISTICS:

Items A-F: Self-explanatory.

Item G: If maximum gain is greater than 12 dB, indicate main lobe beamwidth in elevation and azimuth at the 3-dB points in Remarks (Box 13).

Item H: This information is the same as that of the transmitter power (Box 11J) less the transmission system losses (Box 11M).

Item I: Networks and couplers associated with antenna arrays which are part of the antenna losses should be included in the antenna pattern or be made inherent in the pattern measurement.

BOX 13 REMARKS: Enter any clarifying remarks.

Date: 7-70

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1467 |  |
| (PAGE TITLE)<br>SPACECRAFT/PAYLOAD TELEVISION SYSTEMS - ANTENNA SYSTEMS * |              | DATED                |  | 4. DATE          |  |
| 5. PROGRAM TITLE  |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. DIAGRAM *        |  |                  |  |
|   |              |                      |  |                  |  |

U.S. FORM 2 G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 3 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 1467—SPACECRAFT/PAYLOAD TELEVISION SYSTEMS - ANTENNA SYSTEMS

NOTE: This form is used to describe the spacecraft/payload television antenna systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DIAGRAM: Provide a block diagram of the antenna system, including module number, cable numbers, and schematic numbers as applicable. A cross-section drawing showing the antenna location on the vehicle should be included.

Date: 7-70

1. CLASSIFICATION

| PAGE TITLE:<br>SPACECRAFT PAYLOAD TELEVISION SYSTEMS - FORMAT DESCRIPTION   |           |             | 2. REPLACES PAGE (S)                           |                | 3. PAGE NO.<br>1468 |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
|---|-----------|-------------|--|----------------|---------------------|---------|------------|---------|----------------|---------|---------------|-----------|-------------|-----------|-----------------|-----------|-------------|-----------|------------|-----------|---------------------------------|-----------|----------------|-----------|-------------|-----------|----------------------------------|--|--|--|
|   |           |             | DATED  |                | 4. DATE             |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| 5. PROGRAM TITLE  |           | 6. ITEM NO. | 7. TEST CODE                                   | 8. PROGRAM NO. | 7. REVISION NO.     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| 10. COMPOSITE WAVEFORM  |           |             | 11. SECTION DETAIL - VERTICAL BLANK AND SYNC   |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| 11. SYNC FORMAT INFORMATION   |           |             | 12. SECTION DETAIL - HORIZONTAL BLANK AND SYNC |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| <table border="1"> <thead> <tr> <th>A. FUNCTION</th> <th>B. VALUE</th> </tr> </thead> <tbody> <tr> <td>LINE FREQUENCY</td> <td>( ) LPP</td> </tr> <tr> <td>FRAME RATE</td> <td>( ) FPS</td> </tr> <tr> <td>SYNC FREQUENCY</td> <td>( ) KHZ</td> </tr> <tr> <td>VERTICAL SYNC</td> <td>( ) V SEC</td> </tr> <tr> <td>LINE PERIOD</td> <td>( ) V SEC</td> </tr> <tr> <td>HORIZONTAL SYNC</td> <td>( ) V SEC</td> </tr> <tr> <td>FRONT PORCH</td> <td>( ) V SEC</td> </tr> <tr> <td>BACK PORCH</td> <td>( ) V SEC</td> </tr> <tr> <td>WHITE TO BLACK SIGNAL AMPLITUDE</td> <td>( ) VOLTS</td> </tr> <tr> <td>SYNC AMPLITUDE</td> <td>( ) VOLTS</td> </tr> <tr> <td>D.C. OFFSET</td> <td>( ) VOLTS</td> </tr> </tbody> </table> |           |             | A. FUNCTION                                    | B. VALUE       | LINE FREQUENCY      | ( ) LPP | FRAME RATE | ( ) FPS | SYNC FREQUENCY | ( ) KHZ | VERTICAL SYNC | ( ) V SEC | LINE PERIOD | ( ) V SEC | HORIZONTAL SYNC | ( ) V SEC | FRONT PORCH | ( ) V SEC | BACK PORCH | ( ) V SEC | WHITE TO BLACK SIGNAL AMPLITUDE | ( ) VOLTS | SYNC AMPLITUDE | ( ) VOLTS | D.C. OFFSET | ( ) VOLTS | 13. SECTION DETAIL - LINE PERIOD |  |  |  |
| A. FUNCTION   | B. VALUE  |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| LINE FREQUENCY  | ( ) LPP   |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| FRAME RATE  | ( ) FPS   |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| SYNC FREQUENCY  | ( ) KHZ   |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| VERTICAL SYNC   | ( ) V SEC |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| LINE PERIOD   | ( ) V SEC |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| HORIZONTAL SYNC   | ( ) V SEC |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| FRONT PORCH   | ( ) V SEC |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| BACK PORCH  | ( ) V SEC |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| WHITE TO BLACK SIGNAL AMPLITUDE   | ( ) VOLTS |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| SYNC AMPLITUDE  | ( ) VOLTS |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| D.C. OFFSET   | ( ) VOLTS |             |  |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |
| 15. REMARKS   |           |             | 14. SECTION DETAIL                             |                |                     |         |            |         |                |         |               |           |             |           |                 |           |             |           |            |           |                                 |           |                |           |             |           |                                  |  |  |  |

1. CLASSIFICATION

\*The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

Preparation Instructions: PAGE 1468—SPACECRAFT/PAYLOAD TELEVISION SYSTEMS — FORMAT DESCRIPTION

- NOTE: This form is used for spacecraft/payload requirements. BOX 13 SECTION DETAIL—HORIZONTAL BLANK AND SYNC: Sketch a horizontal sync signal and identify the time intervals.
- BOX 1-9 Follow instructions for Page 1010.
- BOX 10 COMPOSITE WAVEFORM: Sketch a composite video signal showing maximum white and black amplitudes. The following should appear on the sketch from left to right:
- (1) Horizontal sync
  - (2) One line of video
  - (3) Horizontal and vertical sync
  - (4) One line of video and horizontal sync
- BOX 14 SECTION DETAIL—LINE PERIOD: Sketch a line period of the signal in Box 10. Specify the time interval and the relative amplitude of the video signal (white to black) to sync signal.
- BOX 15 SECTION DETAIL: Use for additional sketches as appropriate.
- BOX 16 REMARKS: Enter brief explanatory remarks as required.
- BOX 11 SYNC FORMAT INFORMATION: Complete the table with the applicable information.
- BOX 12 SECTION DETAIL—VERTICAL BLANK AND SYNC: Sketch a vertical sync signal and identify the time intervals.



Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |          |               |          |                |               |                               |               |                     |                |
|---|--------------|----------|---------------|----------|----------------|---------------|-------------------------------|---------------|---------------------|----------------|
| (PAGE TITLE)<br><b>RECOVERY LOCATION AIDS</b> |              |          |               |          |                |               | 1. REPLACES PAGE (S)<br>DATED |               | 2. PAGE NO.<br>1470 |                |
| 3. PROGRAM TITLE                              |              |          |               |          |                |               | 4. PROGRAM NO.                |               | 5. DATE             |                |
| 6. PROGRAM NO.                                |              |          |               |          |                |               | 7. REVISION NO.               |               |                     |                |
| 10. FLOTATION DURATION                        |              |          |               |          |                |               |                               |               |                     |                |
| 11. ELECTRONIC AIDS                           |              |          |               |          |                |               |                               |               |                     |                |
| 12. VISUAL AIDS                               |              |          |               |          |                |               |                               |               |                     |                |
| 8. ITEM NO.                                   | 9. TEST CODE | 10. TYPE | 11. POWER OUT | 12. FREQ | 13. MODULATION | 14. ACTIVATED | 15. TYPE                      | 16. INTENSITY | 17. COLOR           | 18. ACTIVATION |
|   |              |          |               |          |                |               |                               |               |                     |                |
| 19. REMARKS                                   |              |          |               |          |                |               |                               |               |                     |                |

DD FORM 133  
JULY 69

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1470—RECOVERY LOCATION AIDS

NOTE: This form is used to describe the electronic and visual recovery location aids.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 FLOTATION DURATION: Enter flotation duration of the vehicle.

BOX 11 ELECTRONIC AIDS: Detailed description of electronic aids must be entered on Page 1411 with reference to appropriate box numbers.

Box A. TYPE: Enter the type of recovery aids, i.e., HF beacon transmitter, VHF recovery beacon, VHF telemetry, etc.

Box B. POWER OUT: Enter the power output in watts.

Box C. FREQ: Enter the frequency in megahertz.

Box D. MODULATION: Enter the type of modulation.

Box E. ACTIVATED: Enter when the recovery aid is activated, i.e., main chute deployment, impact, after landing, continuous, etc.

BOX 12 VISUAL AIDS:

Box A. TYPE: Enter all visual aids, i.e., sea marker, flashing lights, etc.

Box B. INTENSITY: Indicate the intensity of the visual aid.

Box C. COLOR: Indicate the color of the flashing light, sea marker, etc.

Box D. ACTIVATION: Enter the time and method of activation of the visual aid, i.e., at impact, manually, automatic, etc.

BOX 13 REMARKS: Enter additional information if required.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                     |                 |                                  |                            |
|---|--------------|---------------------|-----------------|----------------------------------|----------------------------|
| (PAGE TITLE)<br><b>VEHICLE SYSTEMS - OTHERS</b> |              |                     |                 | 2. REPLACES PAGE (S)<br><br>DATE | 3. PAGE NO.<br><b>1480</b> |
| 5. PROGRAM TITLE                                |              |                     |                 | 6. PROGRAM NO.                   | 7. REVISION NO.            |
| 8. ITEM NO.                                     | 9. TEST CODE | 10. STAGE OR MODULE | 11. DESCRIPTION |                                  |                            |
|   |              |                     |                 |                                  |                            |

DD FORM 134  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 1480--VEHICLE SYSTEMS - OTHERS**

**NOTE:** This form is used to provide technical information on other vehicle-borne data acquisition equipment which has not been covered elsewhere in this document.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **STAGE OR MODULE:** Enter the vehicle, stage, or module where the equipment is located.

**BOX 11** **DESCRIPTION:** Provide a brief technical description of the vehicle-borne equipment which requires support or which will aid in the support activities.

Date: 7-70

## 1. CLASSIFICATION

|   |                    |                                  |                                |
|---|--------------------|----------------------------------|--------------------------------|
| (PAGE TITLE)<br>REQUESTING AGENCY'S INSTRUMENTATION - GENERAL * |                    | 2. REPLACES PAGE (S)<br><br>DATE | 3. PAGE NO.<br>1500<br>4. DATE |
| 5. PROGRAM TITLE  |                    | 6. PROGRAM NO.                   | 7. REVISION NO.                |
| 8.<br>ITEM NO.  | 9.<br>TEST<br>CODE | 10.<br>DESCRIPTION *             |                                |
|   |                    |                                  |                                |

JOS FORM R G/A  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation instructions: PAGE 1500-REQUESTING AGENCY'S INSTRUMENTATION - GENERAL

NOTE: This form is prepared by the Requesting Agency to provide the Support Agencies with a current listing of Requesting Agency equipments other than transmitters and receivers. Include airborne, shipborne, and ground instrumentation equipment such as X-ray or fluoroscopic equipment, optical tracking, or infrared measuring equipment, data converters, computers, etc., that require support or that interface with Support Agency equipment.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10**      **DESCRIPTION:** List and briefly describe any instrumentation that will be used during the program/mission and that is not listed elsewhere in this document.

Date: 11-79

1. CLASSIFICATION

|   |  |  |              |  |
|---|--|--|--------------|--|
| (PAGE TITLE)<br><b>REQUESTING AGENCY'S INSTRUMENTATION - CHARACTERISTICS</b>  |  | 2. REPLACES PAGE(S)<br>DATE:   |              | 3. PAGE NO. 1510   |
| 5. PROGRAM TITLE  |  | 8. ITEM NO.  | 9. TEST CODE | 6. PROGRAM NO.   |
|   |  |  |              | 7. REVISION NO.  |
| 10. TRANSMITTER CHARACTERISTICS   |  | 11. ANTENNA CHARACTERISTICS  |              | 12. RECEIVER CHARACTERISTICS   |
| A. LOCATION<br>B. TYPE<br>C. MODEL<br>D. MFR<br>E. NO. OF EQUIPMENTS<br>( ) FIXED ( ) MOBILE<br>F. TYPE OF SERVICE<br>( ) GND/GND ( ) GND/AIR<br>( ) OTHER<br>G. FREQ RANGE ( ) MC<br>H. ( ) TUNABLE ( ) FIXED TUNED<br>I. METHOD OF FREQUENCY CONTROL<br>J. BANDWIDTH AT 3 DB ( ) MC<br>AND AT 60 DB ( ) MC<br>K. EMISSION ( ) AM ( ) FM<br>( ) PULSE<br>( ) COMPOSITE NONSTANDARD<br>L. FREQ STAB + OR - ( ) WATTS<br>M. AVERAGE POWER ( ) WATTS<br>N. PEAK PULSE PWR ( ) WATTS<br>O. NORMAL PRF ( ) PPS<br>P. MAX PRF ( ) PPS<br>Q. PULSE WIDTHS AT 3 DB POINTS<br>( ) ( ) MICROSEC<br>R. HARMONIC SUPPRESSION IN DB<br>2ND ( ) 3RD ( ) 4TH ( )<br>S. CODING AND/OR MOD<br>T. SPECTRUM ANALYSIS REPORT NO. ( )<br>HAS BEEN PROVIDED TO ( )<br>IF NOT, WILL BE AVAILABLE ON<br>DATE |  | A. LOCATION<br>B. TYPE<br>C. MODEL<br>D. MFR<br>E. FREQ RANGE ( ) MC<br>F. ( ) TUNABLE ( ) FIXED TUNED<br>G. PREDOMINANT POLARIZATION<br>(CHECK ONE)<br>( ) VERTICAL<br>( ) HORIZONTAL<br>( ) CIRCULAR ( ) LH ( ) RH<br>( ) OTHER<br>H. MAX GAIN WITH RESPECT TO<br>ISOTROPIC ( ) DB<br>I. MAIN LOBE BEAMWIDTH IN DEG AT<br>3 DB POINT ELEV ( )<br>AZ ( )<br>J. RATE OF ROTATION ( ) RPM<br>INDICATE IF FIXED ( )<br>K. SPECTRUM ANALYSIS REPORT NO.<br>( ) HAS BEEN PROVIDED<br>TO ( ) IF NOT,<br>WILL BE PROVIDED ON ( )<br>DATE |              | A. LOCATION<br>B. TYPE<br>C. MODEL<br>D. MFR<br>E. NO. OF EQUIPMENTS - FIXED OR MOBILE<br>F. FREQUENCY STABILITY: $\pm$ MHZ<br>G. FREQUENCY STABILITY: $\pm$ C.F.<br>H. METHOD OF RECEIVER FREQ CONTROL<br>I. INTERMEDIATE FREQ<br>J. RECVR SELECTIVITY IN DB - 3 DB,<br>20 DB AND 60 DB<br>K. RCVR SENSITIVITY DBM<br>L. LOCAL OSCILLATOR FREQUENCY (ABOVE<br>OR BELOW)<br>M. SPURIOUS RESPONSE REJECTION DB<br>N. CODED AND/OR MODULATION<br>O. SPECTRUM ANALYSIS REPORT NO.<br>( ) HAS BEEN PROVIDED TO<br>( ) IF NOT, WILL BE<br>PROVIDED ON ( )<br>DATE |
|   |  |  |              | 13. REMARKS  |

UGS FORM R 135 REPLACES FORM R 135 DATED JUL 70,  
NOV 73

1. CLASSIFICATION

Preparation Instructions: PAGE 1510 - REQUESTING AGENCY'S INSTRUMENTATION - CHARACTERISTICS

**NOTE:** This form is prepared by the Requesting Agency to provide the Support Agencies with a current list of all Requesting Agency electronics radiating and receiving equipments and to provide the necessary frequency control and analysis services. Include all radiating and receiving equipments not covered elsewhere in this document.

BOX 1-9 Follow instructions for page 1010.

BOX 10 TRANSMITTER CHARACTERISTICS: Provide the requested data for all transmitters, other than those described elsewhere, which will be brought onto the range by the Requesting Agency. If spectrum analysis reports are available, they should be provided in accordance with the applicable support agency specifications. Use a separate form for each transmitter.

**NOTE:** Transmitting systems which require extensive periods of RF checkout time will be equipped with a closed-loop or nonradiating checkout device.

BOX 11 ANTENNA CHARACTERISTICS: Provide the requested data on antennas for the transmitters described in Box 10.

Items A-G: Self-explanatory.

Item H: If maximum gain is greater than 12 dB, indicate main lobe beamwidth in elevation and azimuth at the 3-dB points in Remarks (Box 13).

BOX 12 RECEIVER CHARACTERISTICS: Enter the data requested. Place an "X" in the appropriate box and include the date if applicable. The range periodically publishes a list of equipments for which spectrum analysis requirements have been met. If the model number of the receiver is identical to the one listed as satisfactorily documented, place an "X" in the box preceding "HAS BEEN PROVIDED."

BOX 13 REMARKS: Enter any clarifying remarks.

## 1. CLASSIFICATION

...E FIVE .../A  
JULY 77

## 1. CLASSIFICATION

Preparation Instructions: PAGE 1600—PRELAUNCH TEST - GENERAL

BOX 1-3 Follow instructions for Page 1010.

122

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |            |                                  |                             |
|--|------------|----------------------------------|-----------------------------|
| (PAGE TITLE)<br><b>PRELAUNCH TEST - IDENTIFICATION</b> |            | 2. REPLACES PAGE (S)<br><br>DATE | 3. PAGE NO. 1610<br>4. DATE |
| 5. PROGRAM TITLE                                       |            | 6. PROGRAM NO.                   | 7. REVISION NO.             |
| 10. PRELAUNCH TEST NAME                                | 11. NUMBER | 10. PRELAUNCH TEST NAME          | 11. NUMBER                  |
|  |            |                                  |                             |

DD FORM 136  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 1610--PRELAUNCH TEST - IDENTIFICATION**

**NOTE:** This form is used to list the prelaunch tests and the associated identification number which is assigned to each pre-launch test document.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **PRELAUNCH TEST NAME:** List the names of the prelaunch tests in the order in which the prelaunch test requirements appear in this document.

**BOX 11** **NUMBER:** Enter the identification number assigned to each prelaunch test document.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |              |                  |                   |                  |                                     |  |                  |             |
|--|--------------|------------------|-------------------|------------------|-------------------------------------|--|------------------|-------------|
| (PAGE TITLE)<br><b>PRELAUNCH TEST - SEQUENCE</b> |              |                  |                   |                  | 2. REPLACES PAGE (9)<br>DATED _____ |  | 3. PAGE NO. 1620 |             |
| 5. PROGRAM TITLE                                 |              |                  |                   |                  | 6. PROGRAM NO.                      |  | 7. REVISION NO.  |             |
| 8. ITEM NO.                                      | 9. TEST CODE | 10. NOMINAL TIME | 11. TIME DURATION | 12. SUPPORT TIME | 13. MAJOR EVENTS                    |  |                  | 14. REMARKS |
|  |              |                  |                   |                  |                                     |  |                  |             |

LOS FORM 2-157  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 1620—PRELAUNCH TEST - SEQUENCE**

**NOTE:** This form is used to identify the sequence and nominal time of major event for each of the prelaunch tests. Time, as specified, is nominal and subject to change.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **NOMINAL TIME:** Enter the nominal time that each major event is programmed, starting from a time reference that may be simulated lift-off, or simulated stage firing, etc. Time, as specified, is nominal and subject to change.

**BOX 11** **TIME DURATION:** Enter the time duration of the corresponding major events.

**BOX 12** **SUPPORT TIME:** Enter the amount of time that will be required in support of the corresponding major event.

**BOX 13** **MAJOR EVENTS:** List the major events that will be performed at the time listed in Box 10, i.e., start transmission of spacecraft PCM telemetry from LCC to MCC, start spacecraft systems check, etc.

**BOX 14** **REMARKS:** Enter special remarks with respect to the time, requirements, or support.

Date: 7-70

## 1. CLASSIFICATION

|                                     |  |                              |  |                    |  |
|-------------------------------------|--|------------------------------|--|--------------------|--|
| 1. PAGE TITLE<br>TERMINAL COUNTDOWN |  | 2. REPLACES PAGE (S)<br>DATA |  | 3. PAGE NO<br>1630 |  |
| 5. PROGRAM TITLE                    |  | 6. ITEM NO.                  |  | 7. REVISION NO.    |  |
| 8. TEST CODE                        |  | 9. PROGRAM NO.               |  | 10. DATE           |  |
| 11. TIME                            |  | 12. OPERATION OR SERVICE     |  | 13. REMARKS        |  |
| A. START                            |  | B. COMPLETE                  |  |                    |  |

105 FORM R 138  
JULY 79

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 1830—TERMINAL COUNTDOWN

**NOTE:** This form is used to describe the relationship of the major milestones that occur during a countdown (pre-count, mid-count and terminal-count). Included in this form should be only those items which affect the requirements in the remainder of the document.

The countdown contained on this form is a minimal countdown and is to be used for planning purposes only. For a detailed sequence of operations, the applicable test and checkout procedure should be consulted.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10** **TIME:** Enter in chronological order the minus times from lift-off when each operation is to be started and completed or when each service is to be rendered. Lift-off will be referred to as T -0, e.g., an event that occurs four hours before lift-off will be shown as occurring at T -4 hours. The specific units of time must be included, i.e., d (days), h (hours), m (minutes), and s (seconds).

BOX 11 OPERATION OR SERVICE: List the operations or services that will be performed at the time listed in Box 10.

BOX 12 REMARKS: Enter clarifying remarks if required.



Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |  |  |  |              |  |                              |  |                    |  |
|---|--|--|--|--------------|--|------------------------------|--|--------------------|--|
| PAGE TITLE:<br><b>TEST ENVELOPE INFORMATION - GENERAL</b> |  |  |  |              |  | 2. REPLACES PAGE (S)<br>DATE |  | 3. PAGE NO<br>1700 |  |
| 4. PROGRAM TITLE  |  |  |  | 5. ITEM NO.  |  | 6. TEST CODE                 |  | 7. PROGRAM NO.     |  |
| 10. TRAJECTORY  |  |  |  | 11. RANGE    |  | 12. ALTITUDE                 |  | 13. GC             |  |
| 14. AZIMUTH   |  |  |  | 15. MAX PERP |  | 16. TEST DIST                |  | 17. REMARKS        |  |
| A. MAXIMUM  |  |  |  |              |  |                              |  |                    |  |
| B. TYPICAL  |  |  |  |              |  |                              |  |                    |  |
| C. MINIMUM  |  |  |  |              |  |                              |  |                    |  |

LOS FROM P 139  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1700-TEST ENVELOPE INFORMATION - GENERAL

NOTE: This form is used to establish a general "Test Envelope" in the early stages of the program.

BOX 1-9 Follow instructions for Page 1010.

BOX 10-16 TRAJECTORIES: For the maximum, typical, and minimum trajectories, enter the known or probable values of the characteristics requested. The typical trajectory is that which will be used in the bulk of flight testing and is not necessarily the "average" as concerns characteristics. Use the remaining boxes to enter known or probable values of range, altitude, error probabilities, azimuth, and maximum performance (velocity, etc.). For test distribution, enter the percentage of total firings in which each different trajectory will be used.

BOX 17 REMARKS: Enter any other information that may further clarify the requirements.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|                                     |              |                 |          |                       |         |         |                  |                  |       |       |  |
|-------------------------------------|--------------|-----------------|----------|-----------------------|---------|---------|------------------|------------------|-------|-------|--|
| (PAGE TITLE)                        |              |                 |          | 1. REPLACES PAGE (S)  |         |         |                  | 3. PAGE NO. 1710 |       |       |  |
| MAJOR MISSION EVENTS - LAUNCH PHASE |              |                 |          | DATED                 |         |         |                  | 4. DATE          |       |       |  |
|                                     |              |                 |          |                       |         |         |                  |                  |       |       |  |
| 5. PROGRAM TITLE                    |              |                 |          | 6. TEST CODE          |         |         |                  | 7. REVISION NO.  |       |       |  |
| 10. SPHEROID                        |              |                 |          | A B                   |         |         |                  | C D              |       |       |  |
| 8. ITEM NO.                         | 9. EVENT NO. | 10. DESCRIPTION | 11. TIME | 12. FLIGHT PATH ANGLE | 13. VEL | 14. ALT | 15. GROUND RANGE | 16. X            | 17. Y | 18. Z |  |
|                                     |              |                 |          |                       |         |         |                  |                  |       |       |  |
| 11. COORD. SYSTEM                   |              |                 |          |                       |         |         |                  |                  |       |       |  |
| 12. REMARKS                         |              |                 |          |                       |         |         |                  |                  |       |       |  |

UDS FORM R 140  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

## Preparation Instructions: PAGE 1710-MAJOR MISSION EVENTS - LAUNCH PHASE

**NOTE:** This form is used to provide trajectory parameters for each major mission event which occurs during the launch phase of the mission from lift-off through insertion (outboard engine cutoff, LES jet-on, ullage ignition, etc.).

**BOX 16** ALT: Give the altitude of the space vehicle at the time specified in BOX 13. Enter in the column heading the units used (feet, meters, kilometers, etc.).

BOX 1-9 Follow instructions for Page 1010.

**BOX 17** **GROUND RANGE:** Give the ground range from the subvehicle point to the launcher at the time specified in Box 13. Enter in the column heading the units used [feet, meters, nautical miles (n. mi.), etc.).

BOX 10 SPHEROID: Designate the spheroid used in deriving the trajectory parameters, and give the major axis (A) and minor axis (B).

**BOX 18** X: Give the X coordinate of the space vehicle at the time specified in Box 13. Enter in the column heading the units used (feet, meters, etc.).

BOX 11      EVENT NO: Enter the event numbers sequentially beginning with number 1.

**BOX 19**      **Y:** Give the Y coordinate of the space vehicle at the time specified in Box 13. Enter in the column heading the units used (feet, meters, etc.).

BOX 12      DESCRIPTION: Describe the event for which the information is to be provided.

BOX 13 TIME: Give the time referenced to liftoff at which the event occurs. If another time base is used, it must be defined in Box 22, REMARKS.

**BOX 20**      **Z:** Give the Z coordinate of the space vehicle at the time specified in Box 13. Enter in the column heading the units used (feet, meters, etc.).

BOX 14 FLIGHT PATH ANGLE: Give the earth fixed flight path angle of the vehicle at the time specified in Box 13.

**BOX 21**      **COORD SYSTEM:** Describe the coordinate system used to derive the coordinates provided in Boxes 18 through 20. Include the location of the origin and the orientation of each axis.

POX 15 VEL: Give the earth fixed velocity of the space vehicle at the time specified in Box 13. Enter in the column heading the units used (feet/sec, meters/sec, etc.).

**BOX 22**      **REMARKS:** In this box, enter any additional information required to clarify the data provided on the form.

Date: 7-70

| 1. CLASSIFICATION                             |              |                       |                  | 2. REPLACES PAGE (S) |         | 3. PAGE NO. 1711 |             |             |
|---|--------------|-----------------------|------------------|----------------------|---------|------------------|-------------|-------------|
| (PAGE TITLE)<br>MAJOR MISSION EVENTS - FLIGHT |              |                       |                  | DATED                |         | 4. DATE          |             |             |
| 5. PROGRAM TITLE                              |              |                       |                  | 6. TEST CODE         |         | 7. REVISION NO.  |             |             |
| 5. PROGRAM NO.                                |              |                       |                  | 6. PROGRAM NO.       |         | 7. REVISION NO.  |             |             |
| 8. ITEM NO.                                   | 9. EVENT NO. | 10. EVENT DESCRIPTION | 11. ELAPSED TIME | 12. POSITION         |         |                  | 13. REV NO. | 14. REMARKS |
|   |              |                       |                  | A. LAT               | B. LONG | C. ALT           |             |             |
|   |              |                       |                  |                      |         |                  |             |             |

UDS FORM R 141  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 1711—MAJOR MISSION EVENTS - FLIGHT

NOTE: This form is used when insertion (orbit) is achieved to list all significant events through the re-entry phase. Separate forms should be used for each mission.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 EVENT NO: Enter the event numbers sequentially beginning with number 1.

BOX 11 EVENT DESCRIPTION: Enter a descriptive title of the event.

BOX 12 ELAPSED TIME: Enter the initiation time of the event after liftoff. If another time base is used, it must be defined in Box 15, REMARKS.

BOX 13 POSITION: Enter the latitude, longitude, and altitude of the earth projection where the event occurs. Altitude should be referenced to mean sea level.

BOX 14

REV NO: For orbital events, list the revolution in which the event takes place.

BOX 15

REMARKS: Enter any explanatory comments that may be required to clarify terminology. Also, make reference to corresponding item numbers on Page 1220, where application of thrust is involved in the event.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>SPACE MANEUVER - APPLICATION OF THRUST</b>  |  | 2. REPLACES PAGE (S)<br><br>DATED | 3. PAGE NO.<br>1712 |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
|--|--|-----------------------------------|---------------------|--|--|--------------------------------|----------------------|----------------------|-----------------|-----------------|-----------------|------------------------|------------------|------------------|-------------------|----------------------|----------------------|-----------------|--------------|--------------|----------|------------------------------|------------------------------|--------|------------------------------------|------------------------------------|----------------------|--------------------------------|--------------------------------|---------------|-------------------------------|-------------------------------|--|-----------------------------------|-----------------------------------|--|
| 4. PROGRAM TITLE   |  | 5. ITEM NO.                       | 6. PROGRAM NO.      |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| 7. EVENT NO.   |  | 8. TEST CODE                      | 9. REVISION NO.     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| <table border="1"> <thead> <tr> <th>11. TRAJECTORY PARAMETERS AT MANEUVER INITIATION</th> <th>12. TRAJECTORY PARAMETERS AT MANEUVER CONCLUSION</th> <th>13. MANEUVER THRUST PARAMETERS</th> </tr> </thead> <tbody> <tr> <td>A. REVOLUTION NUMBER</td> <td>A. REVOLUTION NUMBER</td> <td>A. INITIAL MASS</td> </tr> <tr> <td>B. ELAPSED TIME</td> <td>B. ELAPSED TIME</td> <td>B. MASS EXPULSION RATE</td> </tr> <tr> <td>C. SIDEREAL TIME</td> <td>C. SIDEREAL TIME</td> <td>C. EFFECTIVE AREA</td> </tr> <tr> <td>D. GEODETIC LATITUDE</td> <td>D. GEODETIC LATITUDE</td> <td>D. THRUST LEVEL</td> </tr> <tr> <td>E. LONGITUDE</td> <td>E. LONGITUDE</td> <td>E. PITCH</td> </tr> <tr> <td>F. HEIGHT ABOVE OBLATE EARTH</td> <td>F. HEIGHT ABOVE OBLATE EARTH</td> <td>F. YAW</td> </tr> <tr> <td>G. RADIAL DISTANCE FROM GEO CENTER</td> <td>G. RADIAL DISTANCE FROM GEO CENTER</td> <td>G. MANEUVER DURATION</td> </tr> <tr> <td>H. INERTIAL VELOCITY MAGNITUDE</td> <td>H. INERTIAL VELOCITY MAGNITUDE</td> <td>H. FINAL MASS</td> </tr> <tr> <td>I. INERTIAL FLIGHT PATH ANGLE</td> <td>I. INERTIAL FLIGHT PATH ANGLE</td> <td></td> </tr> <tr> <td>J. INERTIAL AZIMUTH HEADING ANGLE</td> <td>J. INERTIAL AZIMUTH HEADING ANGLE</td> <td></td> </tr> </tbody> </table> |  |                                   |                     | 11. TRAJECTORY PARAMETERS AT MANEUVER INITIATION | 12. TRAJECTORY PARAMETERS AT MANEUVER CONCLUSION | 13. MANEUVER THRUST PARAMETERS | A. REVOLUTION NUMBER | A. REVOLUTION NUMBER | A. INITIAL MASS | B. ELAPSED TIME | B. ELAPSED TIME | B. MASS EXPULSION RATE | C. SIDEREAL TIME | C. SIDEREAL TIME | C. EFFECTIVE AREA | D. GEODETIC LATITUDE | D. GEODETIC LATITUDE | D. THRUST LEVEL | E. LONGITUDE | E. LONGITUDE | E. PITCH | F. HEIGHT ABOVE OBLATE EARTH | F. HEIGHT ABOVE OBLATE EARTH | F. YAW | G. RADIAL DISTANCE FROM GEO CENTER | G. RADIAL DISTANCE FROM GEO CENTER | G. MANEUVER DURATION | H. INERTIAL VELOCITY MAGNITUDE | H. INERTIAL VELOCITY MAGNITUDE | H. FINAL MASS | I. INERTIAL FLIGHT PATH ANGLE | I. INERTIAL FLIGHT PATH ANGLE |  | J. INERTIAL AZIMUTH HEADING ANGLE | J. INERTIAL AZIMUTH HEADING ANGLE |  |
| 11. TRAJECTORY PARAMETERS AT MANEUVER INITIATION   | 12. TRAJECTORY PARAMETERS AT MANEUVER CONCLUSION | 13. MANEUVER THRUST PARAMETERS    |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| A. REVOLUTION NUMBER   | A. REVOLUTION NUMBER                             | A. INITIAL MASS                   |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| B. ELAPSED TIME  | B. ELAPSED TIME                                  | B. MASS EXPULSION RATE            |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| C. SIDEREAL TIME   | C. SIDEREAL TIME                                 | C. EFFECTIVE AREA                 |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| D. GEODETIC LATITUDE   | D. GEODETIC LATITUDE                             | D. THRUST LEVEL                   |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| E. LONGITUDE   | E. LONGITUDE                                     | E. PITCH                          |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| F. HEIGHT ABOVE OBLATE EARTH   | F. HEIGHT ABOVE OBLATE EARTH                     | F. YAW                            |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| G. RADIAL DISTANCE FROM GEO CENTER   | G. RADIAL DISTANCE FROM GEO CENTER               | G. MANEUVER DURATION              |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| H. INERTIAL VELOCITY MAGNITUDE   | H. INERTIAL VELOCITY MAGNITUDE                   | H. FINAL MASS                     |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| I. INERTIAL FLIGHT PATH ANGLE  | I. INERTIAL FLIGHT PATH ANGLE                    |                                   |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| J. INERTIAL AZIMUTH HEADING ANGLE  | J. INERTIAL AZIMUTH HEADING ANGLE                |                                   |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |
| 14. REMARKS  |  |                                   |                     |  |  |                                |                      |                      |                 |                 |                 |                        |                  |                  |                   |                      |                      |                 |              |              |          |                              |                              |        |                                    |                                    |                      |                                |                                |               |                               |                               |  |                                   |                                   |  |

DD FORM 9 142  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1712—SPACE MANEUVER - APPLICATION OF THRUST

NOTE: This form is used to describe each event which results in changes to those orbital parameters which could affect Acquisition of Signal (AOS) and Loss of Signal (LOS) at subsequent ground stations or where computer programs must account for the change in conditions.

BOX 13

MANEUVER THRUST PARAMETERS: Enter the thrust parameters for the maneuver.

BOX 14

REMARKS: Enter brief explanatory remarks as required.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 EVENT NO.: Enter the corresponding event number as referenced on Page 1711.

BOX 11 TRAJECTORY PARAMETERS AT MANEUVER INITIATION: Enter parameters planned at initiation of thrust period.

BOX 12 TRAJECTORY PARAMETERS AT MANEUVER CONCLUSION: Enter parameters planned at conclusion of thrust period.

Boxes 11I and 12I are the angles between the initial velocity vector and the local horizontal plane, measured positive above the horizontal plane. The local horizontal plane is defined as a plane normal to the geocentric position vector.

Boxes 11J and 12J are the angles measured east of north to the projection of the initial velocity vector on the local horizontal plane.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |  |  |                               |              |                     |
|--|--|--|-------------------------------|--------------|---------------------|
| 1. (PAGE TITLE)<br>TRAJECTORY DATA - PLAN VIEW |  |  | 2. REPLACES PAGE (S)<br>DATED |              | 3. PAGE NO.<br>1720 |
| 4. PROGRAM TITLE                               |  |  | 5. ITEM NO.                   | 6. TEST CODE | 7. REVISION NO.     |
| 10. PLAN VIEW                                  |  |  |                               |              |                     |

FORM 10-70  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 4 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 1720—TRAJECTORY DATA - PLAN VIEWS

NOTE: This form is used to provide a plan view of the trajectory of the vehicle.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 PLAN VIEW: Enter a plan view of the trajectory indicating the trajectory azimuth in degrees from True North. Provide impact point of various stages of the vehicle and a maximum probable dispersion pattern (circular error probable, cep) for each impact point in accordance with applicable directives of the launching agency. For orbital or space flights, show only the launch and terminal phases on one page. Use separate pages to show the plan view for the planned orbital and/or space trajectory.

Date: 7-70

|  |                   |                               |                             |
|--|-------------------|-------------------------------|-----------------------------|
| 1. CLASSIFICATION _____                                |                   |                               |                             |
| (PAGE TITLE)<br><b>TRAJECTORY DATA - PROFILE VIEWS</b> |                   | 2. REPLACES PAGE (S)<br>DATES | 3. PAGE NO. 1721<br>4. DATE |
| 5. PROGRAM TITLE _____                                 | 6. ITEM NO. _____ | 8. TEST CODE _____            | 7. REVISION NO. _____       |
| 10. PLANNED TRAJECTORY                                 |                   |                               |                             |
|  |                   |                               |                             |
| 1. CLASSIFICATION _____                                |                   |                               |                             |

Preparation Instructions: PAGE 1721—TRAJECTORY DATA - PROFILE VIEWS

**NOTE:** This form is used to show the profile view of the planned trajectories for powered, ascent, and terminal phases on earth-curvature graphs.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **PLANNED TRAJECTORY:** Show the planned trajectory on the earth-curvature graphs provided. The longer range graph is for trajectories up to 6000 nautical miles. The shorter range graph is for trajectories up to 2000 nautical miles. The altitude scale has been left blank in order that suitable increments may be utilized.

Indicate altitude, burn-out locations, separation, and impact points. Suitable abbreviations may be used to identify the various functions. Enter any such abbreviations on Page 1061.

Date: 7-70

| 1. CLASSIFICATION  |  |  |  |                    |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO.     |  |
|--|--|--|--|--------------------|--------------|----------------------|--|-----------------|--|
| (PAGE TITLE)<br>TRAJECTORY DATA - LAUNCH   |  |  |  |                    |              | DATED                |  | 1722            |  |
| 5. PROGRAM TITLE   |  |  |  | 8. ITEM NO.        | 9. TEST CODE | 10. PROGRAM NO.      |  | 7. DATE         |  |
| 10. LAUNCH AZIMUTH   |  |  |  | 11. FLIGHT AZIMUTH |              |                      |  | 7. REVISION NO. |  |
| 11. PLOTS  |  |  |  |                    |              |                      |  |                 |  |
| <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">LAUNCH</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">ALTITUDE</div> <div></div> </div> Multiple rows of plot data would follow here |  |  |  |                    |              |                      |  |                 |  |

Preparation Instructions: PAGE 1722-TRAJECTORY DATA - LAUNCH

**NOTE:** This form is used to plot the vehicle trajectory during the launch phase (booster or to first stage burnout). In addition to the nominal trajectory, the maximum probable deviation or dispersion above and below the nominal will be plotted.

This page may also be used for describing complete trajectories for tests which cover a range of 1000 nautical miles or less. Page 1721 must be used for longer range trajectories.

BOX 1-9 Follow instructions for Page 1010.

BOX 10      LAUNCH AZIMUTH: Enter the initial launch azimuth.

BOX 11 FLIGHT AZIMUTH: Enter the planned flight azimuth.

BOX 12 PLOTS: The following plots are required on test vehicle performance or trajectories:

- Altitude versus Range
- Velocity versus Time
- Altitude versus Time

The scales have been omitted so that the most convenient scale may be used.

Date: 7-70

|  |  |                            |  |   |  |
|--|--|----------------------------|--|---|--|
| 1. CLASSIFICATION _____                                    |  | 2. REPLACES PAGE (S) _____ |  | 3. PAGE NO. 1723                            |  |
| (PAGE TITLE)<br><b>TRAJECTORY DATA - ORBITAL AND SPACE</b> |  |                            |  | DATED _____                                 |  |
| 5. PROGRAM TITLE _____                                     |  | 6. ITEM NO. _____          |  | 7. REVISION NO. _____                       |  |
| 8. TEST CODE _____   |  | 9. PROGRAM NO. _____       |  | 10. SPACE PATH DIAGRAM - PLANNED TRAJECTORY |  |

LOS FORM 145  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 1723—TRAJECTORY DATA - ORBITAL AND SPACE**

**NOTE:** This form is used to illustrate the planned orbital and space trajectories.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **SPACE PATH DIAGRAM—PLANNED TRAJECTORY:** Four representations of the earth, based on a 3440 nautical mile (n. mi.) radius, are shown in scales of 1000 n. mi. to 0.1 inch, 1000 n. mi. to 0.2 inch, 1000 n. mi. to 0.4 inch, and 1000 n. mi. to 0.5 inch. Use the largest scale practicable, and make solid the dashed line representing the earth scale being used.

**ENTER ORBITING VEHICLE TRAJECTORIES:** On the left side of the form, show the earth orbit phase by placing the plane of the orbit or trajectory in the plane of the paper, indicating the location of the geographic poles. Show apogee and perigee distances of orbit trajectories. Use the right side of the form showing a side view of the earth and the plane of the equator to indicate the plane of orbit, inclination of orbit to equatorial plane, and the geographic location of the poles.

**ENTER SPACE VEHICLE TRAJECTORIES:** For earth-moon trajectories, use the right side of the form to indicate the moon's position showing pertinent information such as lunar orbit injection point, impact point (if applicable), miss distance, lunar orbit, and landing site. Omit as much of the midcourse as is desirable to provide enough space for all trajectory data. Indicate the direction of the sun at the intended time of injection. For interplanetary trajectories, use the space on the right side to show the earth, sun, and target body positions at launch, and when the vehicle reaches its destination. Indicate trajectory aphelion and perihelion. Use additional pages as required.



Date: 11-79

|  |  |  |                                      |                               |  |                          |  |
|--|--|--|--------------------------------------|-------------------------------|--|--------------------------|--|
| 1. CLASSIFICATION                          |  |  |                                      | 2. REPLACES PAGE (S)          |  | 3. PAGE NO. 1724         |  |
| (PAGE TITLE)<br>TRAJECTORY DATA - TERMINAL |  |  |                                      | DATED                         |  | 4. DATE                  |  |
| 5. PROGRAM TITLE                           |  |  | 6. ITEM NO.                          | 7. TEST CODE                  |  | 8. PROGRAM NO.           |  |
| 9. FLIGHT AZIMUTH ON RE-ENTRY              |  |  | 10. IMPACT LAT<br>DEGREES TRUE NORTH | 11. IMPACT LONG<br>POINT LONG |  | 12. TARGET NO. REFERENCE |  |
| 13. RANGE -                                |  |  |                                      | 14. ALTITUDE -                |  |                          |  |
| 15. TIME -                                 |  |  |                                      | 16. VELOCITY -                |  |                          |  |
| 17. IMPACT RANGE (NM)                      |  |  |                                      | 18. PLOTS                     |  |                          |  |

LOS FOM 9 146  
JULY 70

## 1. CLASSIFICATION

Preparation Instructions: PAGE 1724 - TRAJECTORY DATA - TERMINAL

NOTE: This form is used to plot the vehicle (or nose cone, reentry body, etc.) trajectory during the terminal or reentry phase. The reentry phase is generally considered to commence at approximately 300,000 feet. The altitude scale does not need to exceed 300,000 feet unless special sequences or events occur prior to this phase. Units of measure used must be identified.

BOX 1-9 Follow instructions for page 1010.

BOX 10 FLIGHT AZIMUTH ON REENTRY: Enter the flight azimuth of the reentry body from True North.

BOX 11      IMPACT LAT.: Enter the latitude and longitude of the impact point and the time of the impact in seconds after T-0.

BOX 12 TARGET NO. REFERENCE: Enter the appropriate unclassified target number reference point.

80X 13 PLOTS: The following plots are required:

- Altitude versus Range
- Velocity versus Time
- Altitude versus Time

Scales have been omitted so that the most convenient scale may be used.

Date: 11-79

|  |               |                      |  |                  |  |
|--|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                        |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 1800 |  |
| (PAGE TITLE)<br>OPERATIONAL HAZARDS -GENERAL * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                               |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                                    | 10. TEST CODE | 11. DISCUSSION *     |  |                  |  |
|  |               |                      |  |                  |  |

DS FORM 4 G/A  
JULY 79

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.]

Preparation Instructions: PAGE 1800 - OPERATIONAL HAZARDS - GENERAL

NOTE: This form is used by the Requesting Agency to specify hazards that will be present during the test program. This form is used for those items not applicable to page 1810, Operational Hazards - Reports.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DISCUSSION: Define operational hazards not specified on page 1810.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |              |                 |                                    |  |                                  |  |
|--|--------------|-----------------|------------------------------------|--|----------------------------------|--|
| (PAGE TITLE)<br><b>OPERATIONAL HAZARDS - REPORTS</b> |              |                 | 2. REPLACES PAGE(S)<br>DATED _____ |  | 3. PAGE NO. 1810                 |  |
| 5. PROGRAM TITLE                                     |              |                 | 6. PROGRAM NO.                     |  | 7. REVISION NO.                  |  |
| 8. ITEM NO.  | 9. TEST CODE | 10. REPORT NAME | 11. DATE REPORT SUPPLIED           |  | 12. DATE REPORT WILL BE SUPPLIED |  |
|  |              |                 |                                    |  |                                  |  |

UDS FORM R 147  
JUL 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 1810 - OPERATIONAL HAZARDS - REPORTS

**NOTE:** This form is used by the Requesting Agencies as supplemental information for the Occupational Medical Program. There are six reports listed: five are mandatory as indicated by an asterisk, and the sixth is required only when the Requesting Agency has experienced a health problem. The intent of these reports is to obtain information about the hazards which will be present during the test program. The material covered in each report may be limited to that which is considered hazardous by competent medical authority. Include all applicable reports in accordance with existing public law and DOD directive (environmental, etc.).

**\*PROPELLANTS AND OTHER TOXIC OR HAZARDOUS MATERIALS:** In this mandatory report, list the chemical and physical properties and approximate quantity of each substance normally used in conjunction with vehicle testing which may be toxic, poisonous, flammable, explosive, or which otherwise presents a hazard to humans, animals, fish, vegetation, and soil. Include specific information of the effect on humans and the treatment, control, and preventive measures recommended. List the recommended procedures to control any spill or escape of a potentially toxic or dangerous substance. List manufacturer, trade name and chemical ingredients.

**\*RADIATION HAZARDS:** In this mandatory report, list all sources of ionization or radio frequency radiation which may be a hazard to humans. Include the type, amount, normal radiation level, and recommend control procedures.

**\*ACOUSTIC HAZARDS:** In this mandatory report, a noise spectrum report covering the range from 16 to 10,000 hertz is required for each equipment having a noise level in excess of 85 dB, such as vehicle engines, generator sets, air conditioners, etc.

**\*BLAST PARAMETERS FOR 0.4 AND 0.65 PSI:** In this mandatory report, list the blast parameters of 0.4 and 0.65 psi, giving hazard radii and TNT equivalents that result from accidental or planned vehicle explosions.

**\*PROTECTIVE EQUIPMENT NEEDED:** In this mandatory report, furnish all information available on special (uncommon) protective clothing, equipment, and monitoring devices which are to be used during this test program.

**HUMAN FACTORS ANALYSIS:** In this report, list any environmental and job-related conditions that tend to adversely affect the health and efficiency of employees.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **REPORT NAME:** Enter the titles of the reports. Should a second report become necessary because of an appreciable change in the quantity of, or the addition of, a potentially hazardous material, an additional report bearing the identical title will be required.

BOX 11 **DATE REPORT SUPPLIED:** Enter the date each report was provided to the Support Agency.

BOX 12 **DATE REPORT WILL BE SUPPLIED:** If the report has not been provided, enter the date the report will become available. This date should be more than 90 days prior to the first launch in the test program.

**NOTE:** Four copies of each report are required.

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|   |              |                               |                            |
|---|--------------|-------------------------------|----------------------------|
| (PAGE TITLE)<br>TEST OPERATIONAL CONCEPTS - GENERAL * |              | 1. REPLACES PAGE (S)<br>DATED | 3. PAGE NO.<br>2000        |
| 5. PROGRAM TITLE                                      |              | 6. PROGRAM NO.                | 4. DATE<br>7. REVISION NO. |
| 8. ITEM NO.   | 9. TEST CODE | 10. DISCUSSION *              |                            |
|   |              |                               |                            |

JCS FORM R G/A  
JULY 70

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\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 4 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2000--TEST OPERATIONAL CONCEPTS - GENERAL

**NOTE:** This form is used to present a narrative summary of the requirements stated in Categories 2 and 3. The detailed instrumentation requirements will be entered in the appropriate instrumentation sections of the document.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10** Enter a narrative summary of the instrumentation systems requirements which are presented in Pages 2100 through 3999.

Date: 7-70

| 1. CLASSIFICATION                                      | 2. REPLACES PAGE (S) | 3. PAGE NO. 2010 |
|--|----------------------|------------------|
| (PAGE TITLE)<br>GROUND SUPPORT INSTRUMENTATION SUMMARY | 4. DATE              | 5. DATE          |
| 6. PROGRAM TITLE                                       | 7. ITEM NO.          | 8. TEST CODE     |
| 9. PROGRAM NO.   | 10. REVISION NO.     |                  |
| 10. STATION TYPE AND NAME                              | 11                   | 12               |
| 11. TYPE EQUIPMENT                                     | 13                   | 14               |
|  | 15                   | 16               |
|  | 17                   | 18               |
|  | 19                   | 20               |
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|  | 97                   | 98               |
|  | 99                   | 100              |

LOS FORM R 200  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 2010—GROUND SUPPORT INSTRUMENTATION SUMMARY

**NOTE:** This form is used to provide a brief management summary of instrumentation systems. The detailed instrumentation requirements will be found in the appropriate instrumentation sections.

**MATRIX:** Show the relationship between the stations and equipment by entering an appropriate code in the proper boxes and explain on a blank form preceding this page.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10-45 STATION TYPE OR NAME:**

**BLOCK A:** Notes may be required to clarify the entries. If so, enter a reference letter and explain on the blank form.

**BLOCK B:** Enter the station type or name in a vertical position in the space provided.

**BLOCK C:** Notes may be required to clarify the station entries. If so, enter a reference code and explain on the blank form.

**BOX 46**

**TYPE EQUIPMENT:** Enter the type of equipment, grouped according to function (tracking, telemetry, etc.). Enter under each function the type of equipment required to perform the function (C-band, Radar, MISTRAM, S-Band, etc.).

**BLOCK A:** Notes may be required to clarify the entries. If so, enter a reference code and explain on the blank form.

Date: 11-79

|   |               |                      |  |                  |  |
|---|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION                       |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2100 |  |
| (PAGE TITLE)<br>METRIC DATA - GENERAL * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                        |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                             | 10. TEST CODE | 11. DESCRIPTION *    |  |                  |  |
|   |               |                      |  |                  |  |

DD FORM R G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 2100 - METRIC DATA - GENERAL

**NOTE:** This form is used to list general information relating to metric tracking data requirements and should contain a narrative description of such data.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **DESCRIPTION:** Include a brief narrative description of metric tracking instrumentation data requirements. Describe the general metric tracking information and requirements applicable to, but not covered by, the other forms of this section. Types of general metric tracking information and requirements to be shown are as follows:

- I. Data Definitions
  - a. Coordinate system and point of origin desired.
  - b. Physical quantities required and attitude definition.
  - c. Corrections to physical quantities and instructions.
  - d. Units and linear measurements of range and flight test data.
  - e. Basic systems parameters.

II. Instrumentation and Operating Support Instructions

- a. Recorder Requirements
- b. Recorder Instructions
- c. Calibration Standards and Methods

III. Include the accuracy and priority of metric data that is required

- a. Data Accuracy: See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.
- b. Data Priority: See volume 2, subparagraph 1.7.6.4, for further explanation of priority.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

.. 1 v 75

#### A. CLASSIFICATION

Preparation Instructions: PAGE 2110 - METRIC DATA - LAUNCH

NOTE: This form is used to specify the launch data requirements. The launch phase is normally from lift-off until booster or first stage burnout.

30X 1-9 Follow instructions for page 1010.

BOX 10 DATA REQUIRED: Enter the name of the data requested in the following order: position (x, y, z), velocity, acceleration, and attitude. If attitude (roll, pitch, yaw) data are not similar, identify each requirement separately. Repeat, in the order above, the data requirements if different for each test-series category or flight. Also, identify any unique data parameters desired other than the ones listed. Identify the coordinate systems in which the data are required.

BOX 11 INTERVAL: Enter the range, altitude, time interval, or function during which coverage is required. Separate the interval into the smallest increments necessary to properly cover the various accuracies required, i.e., launch - 50 miles, 50 - 1500 miles, etc.

For orbital phase and beyond, indicate vehicle position by appropriate coordinates. Use the Remarks box if additional space is required to define the intervals.

Where appropriate for further clarity, include the geographic location or desired site.

30X 12 DATA PTS/SEC: Enter the minimum number of data points which should be read, tabulated, etc., during data reduction, i.e., 1, 2, 4, 10, 1/10 sec, etc.

**BOX 13. DATA PRIORITY:** Indicate whether the data requirement is Mandatory (M), Required (R), or Desired (D). (See Volume 2, paragraph 1.7.6.4 for further explanation of priority.)

**50X 14 DATA ACCURACY:** Indicate in column 14A the required reduced data accuracy value, i.e.,  $\pm 5$  ft,  $\pm 2$  percent. Indicate in column 14B the class of the value noted in 14A. (See volume 2, paragraph 1.7.6.3 for further explanation of accuracy class.)

BOX 15 REAL-TIME RELAY: State whether information is needed in voice or digital form and to what point it is to be relayed.

BOX 16 PURPOSE AND/OR REMARKS: Insert any remarks necessary to clarify the other columns and/or special requirements.

NOTE: All metric data are normally recorded with timing. It is not necessary to state metric timing requirements or that data required are versus time unless a specific or unique timing signal or rate is required.

Date: 11-79

[illegible]

U.S. FORM R 209  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 2111 - METRIC DATA - MIDCOURSE

NOTE: This form is used to specify the midcourse data requirements. The midcourse phase is normally from booster or first stage burnout to start of terminal or reentry phase for ballistic or probe launches. If the launch is an orbital launch, the midcourse phase begins at booster or first stage burnout and terminates at injection.

BOX 1-9 Follow Instructions for page 1010.

90X 10 DATA REQUIRED: Enter the name of the data requested in the following order: position (X, Y, Z), velocity, acceleration, and attitude. If attitude (roll, pitch, yaw) data are not similar, identify each requirement separately. Repeat, in the order above, the data requirements if different for each test-series category or flight. Also, identify any unique data parameters desired other than the ones listed. Identify the coordinate systems in which the data are required.

90X 11 INTERVAL: Enter the range, altitude, time interval, or function during which coverage is required. Separate the interval into the smallest increments necessary to properly cover the various accuracies required, i.e., launch - 50 miles, 50 - 1500 miles, etc.

For orbital phase and beyond, indicate vehicle position by appropriate coordinates. Use the Remarks box if additional space is required to define the intervals.

Where appropriate for further clarity, include the geographic location or desired site.

80X 12 DATA PTS/SEC: Enter the minimum number of data points which should be read, tabulated, etc., during data reduction, i.e., 1, 2, 4, 10, 1/10 sec, etc.

**BOX 13 DATA PRIORITY:** Indicate whether the data requirement is Mandatory (M), Required (R), or Desired (D). (See Volume 2, paragraph 1.7.6.4 for further explanation of priority.)

BOX 14 DATA ACCURACY: Indicate in column 14A the required reduced data accuracy value, i.e.,  $\pm 5$  ft,  $\pm 2$  percent. Indicate in column 14B the class of the value noted in 14A. (See volume 2, paragraph 1.7.6.3 for further explanation of accuracy class.)

BOX 15 REAL-TIME RELAY: State whether information is needed in voice or digital form and to what point it is to be relayed.

BOX 16 PURPOSE AND/OR REMARKS: Insert any remarks necessary to clarify the other columns and/or special requirements.

**NOTE:** All metric data are normally recorded with timing. It is not necessary to state metric timing requirements or that data required are versus time unless a specific or unique timing signal or rate is required.



Date: 11-79

|   |              |                   |                               |                     |                   |  |  |                     |                            |                      |  |                  |  |
|---|--------------|-------------------|-------------------------------|---------------------|-------------------|--|--|---------------------|----------------------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION                               |              |                   |                               |                     |                   |  |  |                     |                            | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2112 |  |
| (PAGE TITLE)<br>METRIC DATA - ORBITAL AND SPACE |              |                   |                               |                     |                   |  |  |                     |                            | 4. DATE              |  | 5. REVISION NO.  |  |
| 6. PROGRAM NO.                                  |              |                   |                               |                     |                   |  |  |                     |                            | 7. REVISION NO.      |  |                  |  |
| 8. ITEM NO.                                     | 9. TEST CODE | 10. DATA REQUIRED | 11. INTERVAL (RANGE-ALT.-SEC) | 12. DATA POINTS/SEC | 13. DATA PRIORITY | 14. DATA ACCURACY<br>A. VALUE B. CLASS |  | 15. REAL TIME RELAY | 16. PURPOSE AND/OR REMARKS |                      |  |                  |  |
|   |              |                   |                               |                     |                   |  |  |                     |                            |                      |  |                  |  |

UDS FORM R 209  
JULY 70

1. CLASSIFICATION

The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 2112 - METRIC DATA - ORBITAL AND SPACE

- NOTE:** This form is used to specify orbital and space metric data requirements. The orbital phase starts at injection (mid-course terminates at injection when the vehicle attains orbital velocity). Enter orbital data requirements in the same sequence they occur, such as those for the first parking orbit, restart and powered flight, coast period in one orbit, etc.
- BOX 1-9** Follow instructions for page 1010.
- BOX 10** DATA REQUIRED: Enter the name of the data requested in the following order: position (X, Y, Z), velocity, acceleration, and attitude. If attitude (roll, pitch, yaw) data are not similar, identify each requirement separately. Repeat, in the order above, the data requirements if different for each test-series category or flight. Also, identify any unique data parameters desired other than the ones listed. Identify the coordinate systems in which the data are required.
- BOX 11** INTERVAL: Enter the range, altitude, time interval, or function during which coverage is required. Separate the interval into the smallest increments necessary to properly cover the various accuracies required, i.e., launch - 50 miles, 50 - 1500 miles, etc.

For orbital phase and beyond, indicate vehicle position by appropriate coordinates. Use the Remarks box if additional space is required to define the intervals.

Where appropriate for further clarity, include the geographic location or desired site.

- BOX 12** DATA PTS/SEC: Enter the minimum number of data points which should be read, tabulated, etc., during data reduction, i.e., 1, 2, 4, 10, 1/10 sec, etc.
- BOX 13** DATA PRIORITY: Indicate whether the data requirement is Mandatory (M), Required (R), or Desired (D). (See Volume 2, paragraph 1.7.6.4 for further explanation of priority.)
- BOX 14** DATA ACCURACY: Indicate in column 14A the required reduced data accuracy value, i.e.,  $\pm 5$  ft,  $\pm 2$  percent. Indicate in column 14B the class of the value noted in 14A. (See volume 2, paragraph 1.7.6.3 for further explanation of accuracy class.)
- BOX 15** REAL-TIME RELAY: State whether information is needed in voice or digital form and to what point it is to be relayed.
- BOX 16** PURPOSE AND/OR REMARKS: Insert any remarks necessary to clarify the other columns and/or special requirements.
- NOTE:** All metric data are normally recorded with timing. It is not necessary to state metric timing requirements or that data required are versus time unless a specific or unique timing signal or rate is required.

[illegible]

## 1. CLASSIFICATION

Preparation Instructions: PAGE 2113 - METRIC DATA -

NOTE: All metric data are normally recorded with timing. It is not necessary to state metric timing requirements or that data required are versus time unless a specific or unique timing signal or rate is required.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

U.S. DEPT. OF JUSTICE  
JULY 22

## 1. CLASSIFICATION

\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box

## Preparation Instructions: PAGE 2114 - METRIC DATA - TERMINAL

NOTE: This form is used to specify the terminal or reentry metric data requirements. The reentry phase begins at approximately 300,000 feet altitude unless specific functions occur prior to this altitude that will require range support.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DATA REQUIRED: Enter the name of the data requested in the following order: position (X, Y, Z) velocity, acceleration, and attitude. If attitude (roll, pitch, yaw) data are not similar, identify each requirement separately. Repeat, in the order above, the data requirements if different for each test-series category or flight. Also, identify any unique data parameters desired other than the ones listed. Identify the coordinate systems in which the data are required.

BOX 11 INTERVAL: Enter the range, altitude, time interval, or function during which coverage is required. Separate the interval into the smallest increments necessary to properly cover the various accuracies required, i.e., launch - 50 miles, 50 - 1500 miles, etc.

For orbital phase and beyond, indicate vehicle position by appropriate coordinates. Use the Remarks box if additional space is required to define the intervals.

Where appropriate for further clarity, include the geographic location or desired site.

BOX 12 DATA PTS/SEC: Enter the minimum number of data points which should be read, tabulated, etc., during data reduction, i.e., 1, 2, 4, 10, 1/10 sec, etc.

BOX 13 DATA PRIORITY: Indicate whether the data requirement is Mandatory (M), Required (R), or Desired (D). (See Volume 2, paragraph 1.7.6.4 for further explanation of priority.)

80X 14 DATA ACCURACY: Indicate in column 14A the required reduced data accuracy value, i.e.,  $\pm 5$  ft,  $\pm 2$  percent. Indicate in column 14B the class of the value noted in 14A. (See volume 2, paragraph 1.7.6.3 for further explanation of accuracy class.)

BOX 15 REAL-TIME RELAY: State whether information is needed in voice or digital form and to what point it is to be relayed.

| BOX 16 | PURPOSE AND/OR REMARKS: Insert any remarks necessary to clarify the other columns and/or special requirements. |
|--------|--|
|        |  |

**NOTE:** All metric data are normally recorded with timing. It is not necessary to state metric timing requirements or that data required are versus time unless a specific or unique timing signal or rate is required.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

U.S. FORM 9 209  
JULY 70

## 1. CLASSIFICATION

The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 2115 - METRIC DATA - SIGNATURE

**NOTE:** This form is used to specify reentry radar and optical signature data requirements. The reentry phase begins at approximately 100,000 feet altitude unless specific functions occur prior to this altitude that will require range support.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DATA REQUIRED: Enter each type of radar and optical signature data required. Specify objects of interest for each type of data. Include frequencies and polarizations required for optical signature data on each object. Identify each item separately.

BOX 11 INTERVAL: Enter the range, altitude, time interval,  
or function during which coverage is required,  
i.e., launch - 50 miles, 50 - 1500 miles, etc.

For orbital phase and beyond, indicate vehicle position by appropriate coordinates. Use the Remarks box (Box 16) if additional space is required to define the intervals.

Where appropriate for further clarity, include the geographic location or desired site.

```

30X 12      DATA POINTS/SEC.: Enter the minimum number of data
              points which should be read, tabulated, etc., dur-
              ing data reduction. i.e., 1, 2, 4, 10, 1/10 sec,
              etc.

```

**BOX 13 DATA PRIORITY:** Indicate whether the data requirement is mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

**BOX 14 DATA ACCURACY:** Indicate in column 14A the required reduced data accuracy value, i.e.,  $\pm 5$  ft,  $\pm 2\%$ . Indicate in column 14B the class of the value noted in column 14A. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

**BOX 15** REAL-TIME RELAY: State whether information is needed in voice or digital form and to what point it is to be relayed.

BOX 16 PURPOSE AND/OR REMARKS: Insert any remarks necessary to clarify the other columns and/or special requirements.

**NOTE:** All metric data are normally recorded with timing. It is not necessary to state metric timing requirements or that data required are versus time unless a specific or unique timing signal or rate is required.

Signature data are normally recorded at the PRF rate and with timing. It is not necessary to specify data points/second or timing unless a specific or unique timing signal or data rate is required.

Date: 7-70

|                                       |               |                      |  |                  |  |
|---------------------------------------|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____               |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2116 |  |
| (PAGE TITLE)<br>METRIC DATA - OTHER * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                      |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                           | 10. TEST CODE | 11. DATA REQUIRED *  |  |                  |  |
|                                       |               |                      |  |                  |  |

UDS FORM P G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 2116--METRIC DATA - OTHER**

**NOTE:** This form is used to specify other metric data requirements not easily covered on Pages 2110, 2111, 2112, 2113, 2114 and 2115.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DATA REQUIRED:** See Preparation Instructions for Boxes 10-14 on Page 2110. Enter the requirements and the applicable information in the terms and order defined on Page 2110.

Date: 7-70

|  |               |                            |                     |                      |               |                  |  |
|--|---------------|----------------------------|---------------------|----------------------|---------------|------------------|--|
| 1. CLASSIFICATION                                  |               |                            |                     | 2. REPLACES PAGE (S) |               | 3. PAGE NO. 2120 |  |
| (PAGE TITLE)<br>METRIC DATA - PARAMETER RECORDINGS |               |                            |                     | 4. DATE              |               | 5. DATE          |  |
| 6. PROGRAM TITLE                                   |               |                            |                     | 7. PROGRAM NO.       |               | 8. REVISION NO.  |  |
| 9. ITEM NO.  | 10. TEST CODE | 11. METRIC TRACKING SYSTEM | 12. SIGNAL STRENGTH | 13. DATA FORM        | 14. RECORDERS | 15. SEC CL       |  |
|  |               |                            |                     |                      |               |                  |  |
| 16. SPECIAL INSTRUCTION AND REMARKS                |               |                            |                     |                      |               |                  |  |

UDS FORM R 210  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 2120—METRIC DATA - PARAMETER RECORDINGS

- NOTE:** This form is used by the Requesting Agency when identifying requests for metric tracking recordings.
- BOX 1-9** Follow instructions for Page 1010.
- BOX 10** **METRIC TRACKING SYSTEM:** Enter the name of the system or systems to which the requirements apply (i.e., MIPIR, MISTRAM, etc.).
- BOX 11** **SIGNAL STRENGTH:** Indicate if signal strength should be recorded by placing check marks adjacent to the related system.
- BOX 12** **DATA FORM:** Enter the data requirements that the systems listed in Box 10 are to provide for. This can be either basic system parameters or these same parameters after processing. Specify what corrections are to be applied to the data.

- BOX 13** **RECORDERS:** Identify the recorder type (i.e., magnetic tape, strip chart, osc, etc.). Where special instruction is needed, use Box 15.
- BOX 14** **SEC CL:** Enter the security classification of the data to be recorded.
- BOX 15** **SPECIAL INSTRUCTION AND REMARKS:** Use this column to indicate special requirements.

Date: 7-70

| 1. CLASSIFICATION                                |  |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. 2130 |                  |
|--|--|-------------|----------------------|----------------|------------------|------------------|
| (PAGE TITLE)<br>METRIC DATA - NETWORK COVERAGE * |  |             | 4. DATE              |                | 5. DATE          |                  |
| 6. PROGRAM TITLE                                 |  | 7. ITEM NO. | 8. TEST CODE         | 9. PROGRAM NO. |                  | 10. REVISION NO. |
| 11. DIAGRAM *                                    |  |             |                      |                |                  |                  |

DD FORM 100-1  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2130--METRIC DATA - NETWORK COVERAGE

NOTE: This form is used to illustrate the metric tracking coverage which is desired during the launch and orbital phases. Enter the phase being illustrated in Box 5.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DIAGRAM: Depict the vehicle track during flight, recommended tracking station locations, and desired coverage from each station.

Date: 7-70

[illegible]

UDS FORM R 211  
JULY 70

## I. CLASSIFICATION

## Preparation Instructions: Page 2160—METRIC DATA - COVERAGE

**NOTE:** This form is used to identify the optical and electronic instrumentation systems being used. In addition, it will provide information as to location, coverage time, usage, and the phases covered by the metric instrumentation system being used.

**MATRIX:** Show the relationship between the stations and system by entering an appropriate code in the proper boxes and explain in the Reference Notes.

BOX 1-9 Follow instructions for Page 1010.

BOX 11-43 VEHICLE SYSTEMS: Enter in the horizontal space opposite VEH the vehicle(s) involved. In the vertical column opposite SYSTEMS, enter the associated metric tracking system. When more than one vehicle is involved, a vertical line is to be drawn to separate the entries.

BOX 44 STATION:

**BLOCK A: NAME:** Enter the station name or location of the system in the space provided. Separate the entries by appropriate spacing.

**BLOCK B: NOTE:** Clarify the station or location entries by entering a reference code and explaining in Reference Notes.

**BOX 45** REFERENCE NOTES: Use this box to explain all code designations assigned to the blocks on this page. If additional space is required, use a general-purpose form.



Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |               |                         |  |                                   |                                  |  |                  |                         |
|---|---------------|-------------------------|--|-----------------------------------|----------------------------------|--|------------------|-------------------------|
| (PAGE TITLE)<br><b>METRIC DATA - ENGINEERING SEQUENTIAL</b> |               |                         |  |                                   | 2. REPLACES PAGE (S)             |  | 3. PAGE NO. 2170 |                         |
| 4. PROGRAM TITLE  |               |                         |  |                                   | 5. DATES                         |  | 6. DATE          |                         |
| 7. PROGRAM NO.  |               |                         |  |                                   | 8. PROGRAM NO.                   |  | 9. REVISION NO.  |                         |
| 10. ITEM NO.  | 11. TEST CODE | 12. FILM<br>SERIAL TYPE |  | 13. INTERVAL<br>(RANGE ALT. TIME) | 14. ITEM TO BE VIEWED OR COVERED |  |                  | 15. PURPOSE AND REMARKS |
|   |               |                         |  |                                   |                                  |  |                  |                         |

DS FORM R 212  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 2170—METRIC DATA - ENGINEERING SEQUENTIAL**

**NOTE:** This form is used for listing engineering sequential optical requirements. Place an asterisk to the right of the item number to identify the engineering sequential data which will be used for documentary purposes. Using copies of engineering sequential film for documentary purposes will result in a substantial saving. Make reference to such items on the Documentary Photography, Page 3110, but do not repeat the text. All reduction print needs are considered to be documentary; therefore, 16mm reduction prints (timing removed) from 35 or 70mm engineering sequential films will be requested on Page 3110.

**BOX 13**

**PURPOSE AND REMARKS:** State fully the purpose for which the item is needed and any recommendation for obtaining the coverage desired.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **FILM:** Enter the size and type of film desired.

**BOX 11** **INTERVAL:** Enter the range, altitude, or time interval or function during which coverage is required, e.g., 0 to 500 feet, T-4s to T-10s, separation, etc.

**BOX 12** **ITEM TO BE VIEWED OR COVERED:** For each interval of the trajectory, describe the object or action to be photographed. Specify the smallest dimension that must be resolved, number of frames per second, magnitude and direction of motions, whether day or night operations, special considerations of and any other details which may help the photo planning engineers and directors, for example, spectral and intensity characteristics of rocket flames, etc.

Date: 11-79

|  |               |                      |  |                  |  |
|--|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION                          |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2200 |  |
| (PAGE TITLE)<br>TELEMETRY - DATA GENERAL * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                           |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                                | 10. TEST CODE | 11. DESCRIPTION *    |  |                  |  |
|  |               |                      |  |                  |  |

U.S. FORM R G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 2200 - TELEMETRY - DATA GENERAL

**NOTE:** This form is used to list general information/instructions relating to telemetry data requirements such as recommended recording practices, calibration standards and methods, etc.

BOX 4-9 Follow instructions for page 1010.

BOX 10 **DESCRIPTION:** Include a brief description of telemetry ground support instrumentation data requirements applicable to, but not covered by, the other pages of this section. Typical general telemetry instruction/information and requirements to be listed are as follows:

- I. Special Recording Instructions and Techniques
- II. Instrumentation and Operating Support Instructions
  - a. Calibration Standards and Methods
  - b. Operators' Log (Data Sheet) Requirements

III. Include the accuracy and priority of telemetry data required

a. Data Accuracy: Indicate the required reduced data accuracy value, i.e., % or in parts per million, and the class of the value. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

b. Data Priority: Indicate whether the data requirements are mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

**NOTE:** Enter the security classification of the data to be transmitted, if applicable.

Date: 11-79

[illegible]

## Preparation Instructions: PAGE 2210 - TELEMETRY - RECORDING INTERVAL

NOTE: This form is used to describe the telemetry events to be recorded and the type and interval required. The information on this page will conform to the Inter-Range Instrumentation Group (IRIG) standards unless otherwise stated.

30X 1-3 Follow instructions for page 1010.

20X 10. MEASURED EVENT: Enter the assigned measurement number and name.

30X !! LINK: Enter the RF link frequency in megahertz of each link to be used. This frequency is later used to identify the link, i.e., Link 225.5. Enter below the frequency, the type of modulation, that is, FM/FM, PDM/FM, PAM/FM, PCM, etc.

BOX 12 TELEMETRY CHANNEL: Identify the telemetry link channel number or assigned code number associated with the event to be recorded.

BOX 13      RECORDING INTERVAL: Enter time (minutes), position (feet, nautical miles, etc.), or flight phase interval or period during which telemetry recordings or coverage will be required. For definition of classes see volume 1, subparagraph 2.9.3.

BCX 14 MEASURE RATE: Enter the measuring (commutation or repetition) rate. For commutated channels list the revolutions per second (rps) such as 2.5, 5, 10, 20, 30, etc. Enter "CONT" for continuous (noncommutated) channels. For each PCM link, list the bit rate in bits per second (bps) such as 40K, 60K, 300K, 400K, 500K, 800K, etc., (K=1000).

BOX 15 REQUIRED IN REAL TIME: Enter an "X" in the column on the applicable line item (link or channel) for data required in real time (performed during the actual flight or test of the test vehicle).

**Abbreviations:**

**TAPE:** Magnetic tapes

PEN: Pen recordings

SS: Signal strength recordings of links

OSC: Oscillograph recordings

CONS PRES: Console presentation in real time of specific test parameters such as velocity, temperature, sequential events, etc. Clarify in Remarks box (Box 18).

COMPUTE: Computations. Clarify in Remarks box (Box 18).

BGX 16 DATA PRIORITY: Indicate whether the Data requirement  
 is mandatory (M), required (R), or desired (D).  
 (See volume 2, subparagraph 1.7.6.4. for further  
 explanation of priority.)

BOX 17 DATA ACCURACY: Indicate in column 17A the required reduced data accuracy value, e.g., 1, 2, or parts per million. Indicate in column 17B the class of the value noted in column 17A. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

BOX 18 REMARKS: Enter any statements necessary to clarify entries made in other columns. Use the note system, and a blank general-purpose form if additional space is required.

Date: 7-70

## 1. CLASSIFICATION

[illegible]

UDS FORM R 214  
JULY 70

## I. CLASSIFICATION

## Preparation Instructions: PAGE 2220-TELEMETRY - ANALOG STRIP CHART RECORDING FORMAT

NOTE: This form is used by the Requesting Agency to list analog telemetry recording requirements.

**BOX 14**      **SEG:** Identify the telemetry link channel segment associated with each measurement to be recorded.

**BOX 1-9 Follow instructions for Page 1010.**

**BOX 15**      **ACCURACY:** List the calibration and deflection requirements that may be needed.

BOX 10      TRACE NO.: Indicate the trace number sequentially from the left side of recorder. Show unused traces if applicable.

**BOX 16** **RECORDER IDENT AND SPEED:** Identify the recorder by station or facility and/or other unique identification; also, indicate recording speed in inches per second (ips) or millimeters per second (mm/s).

BOX 11 MEASUREMENT: Identify the assigned measurement name and number.

BOX 12 LINK: Identify the telemetry link to be associated with each measurement to be recorded. Give frequency or other acceptable designation.

|        |   |
|--------|---|
| BOX 17 | REMARKS: Use this column to clarify any entries or designations that appear on this page. |
|--------|---|

BOX 13 CHANNEL: Identify the telemetry link channel associated with each measurement to be recorded.

Date: 7-70

## 1. CLASSIFICATION

[illegible]

JCS FORM R 215  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 2230--TELEMETRY - EVENT RECORDING FORMAT

NOTE: This form is used by the Requesting Agency to list the telemetry event recording requirements.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 STATION REC NO.: Identify the event recorder to be used (i.e., 1, 2, 3, etc.).

BOX 11      SPEED: Indicate the recording speed in inches per second or millimeters per second. Specify ips or mm/s.

BOX 12      TRACE NO.: Indicate the trace number sequentially from the left side of recorder. Show unused traces if applicable.

BOX 13 MEAS ID NO.: Indicate the identification number of the event to be recorded.

**BOX 14**      **EVENT:** List the name of the event being recorded.

BOX 15 LINK MHZ: Identify the telemetry link in megahertz associated with measurement being recorded.

BOX 16 TLM CHAN: Identify the telemetry link channel associated with each event to be recorded.

BOX 17 BIT NO.: Indicate the bit number containing the event to be recorded.

BOX 18      SAMP RATE SPS: Indicate sample rate in samples per second.

BOX 19 REMARKS: Use this column to clarify any entries or designations that appear on this page.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |              |                      |            |                                |  |                      |                           |                               |                       |                     |  |
|--|--------------|----------------------|------------|--------------------------------|--|----------------------|---------------------------|-------------------------------|-----------------------|---------------------|--|
| PAGE TITLE<br><b>TELEMETRY - DECOMMUTATION PROCESSING SPECIFICATIONS</b> |              |                      |            |                                |  |                      |                           | 2. REPLACES PAGE (S)<br>DATED |                       | 3. PAGE NO.<br>2240 |  |
| 1. PROGRAM TITLE   |              |                      |            |                                |  |                      |                           | 4. PROGRAM NO.                |                       | 7. REVISION NO.     |  |
| 8. ITEM NO.  | 9. TEST CODE | 10. DATA DESCRIPTION | 11. SEC CL | 12. PROCESSING TIME<br>FROM TO |  | 13. DATA SAMPLE RATE | 14. DATA COMPRESSION TYPE | 15. CRT UPDATE RATE           | 16. LINE PRINTER RATE | 17. DATA PLOT RATE  | 18. DATA FORMAT/<br>GENERAL INSTRUCTIONS |
|  |              |                      |            |                                |  |                      |                           |                               |                       |                     |  |

DD FORM R 216  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

PREPARATION INSTRUCTIONS: PAGE 2240--TELEMETRY - DECOMMUTATION PROCESSING SPECIFICATIONS

- NOTE:** This form is used to outline telemetry decommutation requirements in the areas of Cathode Ray Tube (CRT) presentations, line printer displays, analog digitizing, and data compression.
- BOX 1-9** Follow instructions for Page 1010.
- BOX 10** DATA DESCRIPTION: Enter the type of data to be processed.
- BOX 11** SEC CL: Enter the security classification (U, C, S) of the data being processed.
- BOX 12** PROCESSING TIME: Enter the time (Zulu or flight time) to begin and stop processing.
- BOX 13** DATA SAMPLE RATE: Enter the rate at which the data should be sampled and stored on analog magnetic tape.
- BOX 14** DATA COMPRESSION TYPE: Enter the type of data compression to be performed on the data, i.e., fixed limits, floating limits, pass, mask, etc., if applicable.
- BOX 15** CRT UPDATE RATE: Enter the rate at which the data/measurement value should be updated, i.e., 5/sec, 15/sec.
- BOX 16** LINE PRINTER RATE: Enter the rate at which the data/measurement value should be updated, i.e., 5/sec, 15/sec.
- BOX 17** DATA PLOT RATE: Enter the rate at which the data should be taken from the sampled data and plotted or printed.
- BOX 18** DATA FORMAT/GENERAL INFORMATION: Enter all special data formats for general instructions which are needed to define further the specifications of the processed data.

Date: 7-70

[illegible]

LOS ANGELES 217  
JULY 22

## 1. CLASSIFICATION

Preparation instructions: PAGE 2260-TELEMETRY - COVERAGE

NOTE: This form is used to summarize the telemetry coverage used. In addition, it will provide information as to location, coverage time, link frequency, and the phases covered by the telemetry systems.

**MATRIX:** Show the relationship between the stations and telemetry link by entering an appropriate code in the proper boxes and explain in the Reference Notes.

BOX 1-9 Follow instructions for Page 1010.

BOX 10-40    **FREQ. AND LINK:** Enter the frequency (in megahertz) and the number of the telemetry link.

**BLOCK A:** Enter in the horizontal line, the stage or module designation.

BOX 11 TOTALS: Enter the total number of links required at each station.

BOX 42      STATION:

**BLOCK A: NAME:** Enter the station name or location in the space provided.

**BLOCK B: NOTE:** Clarify the station or location entries by entering a reference code and explaining in Reference Notes.

BOX 43 REFERENCE NOTES: Use this box to explain all code designations. If additional space is required, use a blank general-purpose form.

Date: 11-79

|                                     |              |                               |
|-------------------------------------|--------------|-------------------------------|
| 1. CLASSIFICATION _____             |              |                               |
| (PAGE TITLE)<br>COMMAND - GENERAL * |              | 1. REPLACES PAGE (S)<br>DATED |
|                                     |              | 2. PAGE NO. 2300<br>4. DATE   |
| 3. PROGRAM TITLE                    |              | 5. PROGRAM NO.                |
|                                     |              | 7. REVISION NO.               |
| 8. ITEM NO.                         | 9. TEST CODE | 10. DISCUSSION *              |
|                                     |              |                               |

U.S. FORM P. 9/A  
JULY 77

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 2300 - COMMAND - GENERAL

NOTE: This form is used to define general command requirements.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DISCUSSION: Define general command requirements. Include the accuracy and priority of command data required.

a. Data Accuracy: Indicate the required reduced data accuracy value, i.e., % or in parts per million, and the class of the value. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

b. Data Priority: Indicate whether the data requirements are mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)



## 1. CLASSIFICATION

|                                  |              |                               |          |                             |   |
|----------------------------------|--------------|-------------------------------|----------|-----------------------------|---|
| PAGE TITLE)<br>COMMAND - CONTROL |              | 2. REPLACES PAGE (S)<br>DATES |          | 3. PAGE NO. 2310<br>4. DATE |   |
| 5. PROGRAM TITLE                 |              | 6. PROGRAM NO.                |          | 7. REVISION NO.             |   |
| 8. ITEM NO.                      | 9. TEST CODE | 10. COMMAND FUNCTION          | 11. TIME | 12. FUNCTION CODE           | 13. PURPOSE AND REMARKS/SPECIAL INSTRUCTION |
|                                  |              |                               |          |                             |   |

## 1. CLASSIFICATION

Preparation Instructions: PAGE 2310—COMMAND - CONTROL

NOTE: This form is used by the Requesting Agency to list functions to be accomplished after launch using the command control system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10      COMMAND FUNCTION: List the name of the function to be performed.

BOX 11 TIME: Give the time that the function is to be performed. If the time listed in this block is nominal, explain in the Remarks column the method of arriving at the actual time.

BOX 12      FUNCTION CODE: Give the code which must be transmitted to perform the function.

**BOX 13** **PURPOSE AND REMARKS/SPECIAL INSTRUCTIONS:** Use this block to explain the purpose of the requirement. Also, use this space for any remarks or special instructions which would be informative to those who must plan the support.

Date: 7-70

|                                      |              |                      |  |                  |  |
|--------------------------------------|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____              |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2320 |  |
| (PAGE TITLE)<br>COMMAND - DESTRUCT * |              | DATED                |  | 4. DATE          |  |
| 5. PROGRAM TITLE                     |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                          | 9. TEST CODE | 10. DESCRIPTION *    |  |                  |  |
|                                      |              |                      |  |                  |  |

UOS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 2320—COMMAND-DESTRUCT**

**NOTE:** This form is used only by organizations which have vehicle destruct responsibility. Requirements which are to be levied against other agencies are to be entered on this form.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DESCRIPTION:** Enter each requirement which must be supported in order to evaluate situations relevant to the Command-Destruct function and to carry out this responsibility.

Date: 7-70

|  |               |                      |  |                  |  |
|--|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                  |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2330 |  |
| (PAGE TITLE)<br>COMMAND - UP-DATA LINK * |               | 4. DATES             |  | 5. DATE          |  |
| 6. PROGRAM TITLE                         |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                              | 10. TEST CODE | 11. DESCRIPTION *    |  |                  |  |
|  |               |                      |  |                  |  |

UDS FORM 2 G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2330—COMMAND - UP-DATA LINK

NOTE: This form is used to describe the command up-data link requirements.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Enter each requirement which must be supported in order to evaluate situations relevant to the command up-data link function and to carry out this responsibility.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                                   |                     |
|---|--------------|-----------------------------------|---------------------|
| (PAGE TITLE)<br>COMMAND - UP-DATA LINK RECORDINGS * |              | 2. REPLACES PAGE (S)<br><br>DATED | 3. PAGE NO.<br>2340 |
| 5. PROGRAM TITLE                                    |              | 6. PROGRAM NO.                    | 7. REVISION NO.     |
| 8. ITEM NO.   | 9. TEST CODE | 10. DESCRIPTION *                 |                     |
|   |              |                                   |                     |

DDPS FORM 10 6/A  
JULY 77

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 2340—COMMAND - UP-DATA LINK RECORDINGS**

**NOTE:** This form is used to describe the recording requirements for the command up-data link system.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DESCRIPTION:** Provide a description of the support requirements for the command up-data link recording system during the various mission phases.

Date: 7-70

[illegible]

LOS FORM R 221  
JULY 70

## 1. CLASSIFICATION

**Preparation Instructions: PAGE 2360—COMMAND-UP-DATA LINK STATIONS COVERAGE**

NOTE: This form is used to present the coverage of the command systems being used. In addition, it will provide information as to location, coverage time, usage, and the phases covered by the command system.

**MATRIX:** Show the relationship between the station/frequency and the data in Boxes 10 through 12 by entering an appropriate code in the proper boxes.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10**      **STAGE OR MODULE:** Enter the designation for the stage or module to which the data applies.

BOX 11 DATA TYPE: Enter the type of data, i.e., command or destruct.

**BOX 12**      **RF AND KEYING MODULATION:** Enter the RF and keying modulation information, i.e., PM/FM, FM/FSK, etc.

**BOX 13-57 STATION AND FREQUENCY:** Enter in a vertical position the station name and frequency in the space provided.

**BOX 58**    **REMARKS:** Use this box to explain all code designations assigned to the blocks on this page. If additional space is required, use a general-purpose blank form.

Date: 7-70

| 1. CLASSIFICATION _____                                     |              |                      |                  |
|---|--------------|----------------------|------------------|
| (PAGE TITLE)<br>AIR/GROUND VOICE COMMUNICATIONS - GENERAL * |              | 2. REPLACES PAGE (S) | 3. PAGE NO. 2400 |
| 5. PROGRAM TITLE  |              | 4. DATE              | 6. PROGRAM NO.   |
| 7. ITEM NO.   | 8. TEST CODE | 9. REQUIREMENTS *    |                  |
|   |              |                      |                  |

UOS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2400--AIR/GROUND VOICE COMMUNICATIONS - GENERAL

NOTE: This form is used to specify the general voice communication ground support instrumentation.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 REQUIREMENTS: Enter requirements not contained elsewhere in this section and which must be supported in order to provide effective air/ground voice communication support.

Date: 11-79

| 1. CLASSIFICATION   |              |                         |                            |                           |         |                               |          |                     |                  |             |  |
|---|--------------|-------------------------|----------------------------|---------------------------|---------|-------------------------------|----------|---------------------|------------------|-------------|--|
| PAGE TITLE:<br>AIR/GROUND VOICE COMMUNICATIONS - RECORDINGS |              |                         |                            |                           |         | 2. REPLACES PAGE (S)<br>DATE: |          | 3. PAGE NO.<br>2410 |                  |             |  |
| 5. PROGRAM TITLE  |              |                         |                            |                           |         | 6. PROGRAM NO.                |          | 7. REVISION NO.     |                  |             |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. STATION OR LOCATION | 11. RECORDING REQUIREMENTS | 12. AUDIO/VIDEO RECORDING |         |                               |          |                     | 13. TIME CORREL. | 14. REMARKS |  |
|   |              |                         |                            | A. START                  | B. STOP | C. A/V                        | D. SPEED | E. REEL SIZE        |                  |             |  |
|   |              |                         |                            |                           |         |                               |          |                     |                  |             |  |

U.S. FORM R 222  
JULY 70

1. CLASSIFICATION

[The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 2410 - AIR/GROUND VOICE COMMUNICATIONS - RECORDINGS

**NOTE:** This form is used to levy requirements for recording radio, television, and other types of RF or communications.

To further clarify the title, enter the type of recording required in the Page Title box.

BOX 1-9 Follow instructions for page 1010.

BOX 10 STATION OR LOCATION: Indicate the station or location that will record the communication data.

BOX 11 RECORDING REQUIREMENTS: List the data that is to be recorded, the method of recording, and any special recording format.

BOX 12 AUDIO/VIDEO RECORDING:

Box A. START: Enter the time the recording is to be initiated, i.e., T-0, Acquisition of Signal [AOS], etc.

Box B. STOP: Enter the time the recording is to be terminated, i.e., T+350 sec, Loss of Signal [LOS], etc.

Box C. A/V: Enter the type of recording, i.e., audio [A], video [V], or both [AV].

Box D. SPEED: Enter the recording speed in inches per second or millimeters per second. Indicate units.

Box E. REEL SIZE: Enter the reel size limitations of the playback equipment, i.e., 3 in., 5 in., 7 in., 10-1/2 in., etc.

BOX 13 TIME CORREL: Check "Yes" or "No" block to indicate whether or not time correlation is required on the recording.

BOX 14 REMARKS: List any special instructions and/or remarks to clarify the recording requirements.

Date: 7-70

1. CLASSIFICATION

|  |               |            |                               |                                  |             |                         |  |
|--|---------------|------------|-------------------------------|----------------------------------|-------------|-------------------------|--|
| PAGE TITLE)<br><b>AIR / GROUND VOICE COMMUNICATIONS - COVERAGE</b> |               |            |                               | 2. REPLACES PAGE (S)             |             | 3. PAGE NO. <b>2460</b> |  |
| 5. PROGRAM TITLE   |               |            |                               | 6. DATES                         |             | 4. DATE                 |  |
|  |               |            |                               | 8. PROGRAM NO.                   |             | 7. REVISION NO.         |  |
| 9. ITEM NO.  | 10. TEST CODE | 11. SYSTEM | 12. TIME (GET) OR TIME PERIOD | 13. RECOMMENDED SITE OR LOCATION | 14. REMARKS |                         |  |
|  |               |            |                               |                                  |             |                         |  |

UDS FORM R 223  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 2460—AIR/GROUND VOICE COMMUNICATIONS - COVERAGE

NOTE: This form is used to identify the voice communication equipment/systems for air/ground communications that will be used. In addition, it will provide information as to location, coverage time, and the phases covered by the system.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 SYSTEM: List the recommended system which supplied the coverage described below.

BOX 11 TIME (GET) OR TIME PERIOD: Enter the Ground Elapsed Time (GET) or time period for which coverage is provided.

BOX 12 RECOMMENDED SITE OR LOCATION: Enter recommended geographic or site locations for the provided coverage.

BOX 13 REMARKS: Additional information necessary to justify or clarify entries should be entered in this box.



Date: 11-79

|   |               |                            |  |                  |  |
|---|---------------|----------------------------|--|------------------|--|
| 1. CLASSIFICATION _____                       |               | 2. REPLACES PAGE (S)       |  | 3. PAGE NO. 2500 |  |
| (PAGE TITLE)<br>COMPOSITE SYSTEMS - GENERAL * |               | 4. DATE                    |  | 5. DATE          |  |
| 6. PROGRAM TITLE                              |               | 7. PROGRAM NO.             |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                                   | 10. TEST CODE | 11. GENERAL REQUIREMENTS * |  |                  |  |
|   |               |                            |  |                  |  |

LOS FORM 7 G/A  
JULY 79

1. CLASSIFICATION \_\_\_\_\_

The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 2500 - COMPOSITE SYSTEMS - GENERAL

**NOTE:** This form is used to describe the general operational requirements of the composite systems.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **GENERAL REQUIREMENTS:** Provide a description of the composite systems requirements necessary to support the mission during the various mission phases. Define only those composite systems requirements not contained elsewhere in this document.

Include the accuracy and priority of the data required.

a. Data Accuracy: Indicate the required reduced data accuracy value, i.e., 3 or 10 parts per million, and the class of the value. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

b. Data Priority: Indicate whether the data requirements are mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

Date: 7-70

|  |              |                            |  |                       |  |
|--|--------------|----------------------------|--|-----------------------|--|
| 1. CLASSIFICATION _____                      |              | 2. REPLACES PAGE (S) _____ |  | 3. PAGE NO. 2510      |  |
| (PAGE TITLE)<br>COMPOSITE SYSTEMS - DETAIL * |              | DATE _____                 |  | 4. DATE _____         |  |
| 5. PROGRAM TITLE _____                       |              | 6. PROGRAM NO. _____       |  | 7. REVISION NO. _____ |  |
| 8. ITEM NO.                                  | 9. TEST CODE | 10. DESCRIPTION *          |  |                       |  |
|  |              |                            |  |                       |  |

U.S. FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2510—COMPOSITE SYSTEMS - DETAIL

NOTE: This form is used to describe the composite systems support requirements.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Define ground support instrumentation required to support the composite systems.

Date: 7-70

## 1. CLASSIFICATION

[illegible]

U.S. FORM R 224  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 2520—COMPOSITE SYSTEMS - PARAMETER RECORDINGS

NOTE: This form is used to define the composite systems parameter recording requirements.

**BOX 12**

**IDENTIFICATION:** Identify the parameter measurement being recorded.

BOX 1-9 Follow instructions on Page 1010.

**BOX 13**

**REMARKS:** Use this column to clarify any entries or designations that appear on this page. Identify any special qualifications required for the recording (timing pulses, synchronization pulses, signal strength, frequency response, etc. required for each parameter). State which sites will deviate from the procedure as stated. Identify any particular parameter formatting required for special purpose analysis.

BOX 10 STATION: List the station site (i.e., MIL-GTI, HAW, etc.).

BOX 11      LINK:

Box A. Enter in the link number of the frequency being measured.

**Box B.** Enter the frequency of the link identified in Box A.

Date: 7-70

## 1. CLASSIFICATION

|  |              |                               |                     |
|--|--------------|-------------------------------|---------------------|
| 1. PAGE TITLE:<br>COMPOSITE SYSTEMS - EVENT RECORDING FORMAT - |              | 2. REPLACES PAGE (S)<br>DATED | 3. PAGE NO.<br>2530 |
| 5. PROGRAM TITLE   |              | 6. PROGRAM NO.                | 7. REVISION NO.     |
| 8. ITEM NO.  | 9. TEST CODE | 10. DESCRIPTION *             |                     |
|  |              |                               |                     |

LOS FORM R 3/A  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2530--COMPOSITE SYSTEMS - EVENT RECORDING FORMAT

**NOTE:** This form is used by the Requesting Agency to list the composite systems event recording requirements.

**BOX 1-9 Follow instructions for Page 1010.**

BOX 10 DESCRIPTION: Describe in a general manner the requirements for the composite systems event recordings. List the events by name and the applicable stations. Identify any additional information for further identification and/or instruction by note.

Date: 7-70

|   |               |                      |  |                  |  |
|---|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION   |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2540 |  |
| (PAGE TITLE)<br>COMPOSITE SYSTEMS - ANALOG STRIP CHART RECORDING FORMAT * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE  |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.   | 10. TEST CODE | 11. DESCRIPTION *    |  |                  |  |
|   |               |                      |  |                  |  |

UDS FORM 2 R/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2540—COMPOSITE SYSTEMS - ANALOG STRIP CHART RECORDING FORMAT

**NOTE:** This form is used by the Requesting Agency to define the composite systems analog strip chart recording requirements. Information presented will be assumed to conform to the IRIG (Inter-Range Instrumentation Group) standard unless otherwise stated. The Support Agency will record in the most convenient format unless a particular format is required for special analysis.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DESCRIPTION:** List the assigned measurement name and/or number, and the applicable station(s). Identify any qualification applicable to the measurement by note, i.e., calibration, frequency, recorder speed, etc.

Date: 7-70

## 1. CLASSIFICATION

|                                |              |                               |                                      |                                     |  |                  |  |
|--------------------------------|--------------|-------------------------------|--------------------------------------|-------------------------------------|--|------------------|--|
| (PAGE TITLE)                   |              |                               |                                      | 3. REPLACES PAGE (S)                |  | 3. PAGE NO. 2560 |  |
| COMPOSITE SYSTEMS - COVERAGE * |              |                               |                                      | 4. DATES                            |  | 4. DATE          |  |
|                                |              |                               |                                      | 5. PROGRAM NO.                      |  | 7. REVISION NO.  |  |
| 5. PROGRAM TITLE               |              |                               |                                      | 5. PROGRAM NO.                      |  | 7. REVISION NO.  |  |
| 6. ITEM NO.                    | 9. TEST CODE | 10. TIME (SET) OR TIME PERIOD | 11. GEO LOCATION OR RECOMMENDED SITE | 12. COVERAGE<br>A. FREQUENCY B. NO. |  | 13. REMARKS      |  |
|                                |              |                               |                                      |                                     |  |                  |  |

105 50000 225  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

**Preparation Instructions: PAGE 2560—COMPOSITE SYSTEMS - COVERAGE**

NOTE: This form is used to summarize the coverage of the composite systems.

**BOX 1-9 Follow instructions for Page 1010.**

BOX 10 . TIME (GET) OR TIME PERIOD: Enter the Ground Elapsed Time (GET) or time period during which the coverage is provided.

BOX 11 GEO LOCATION OR RECOMMENDED SITE: Enter the recommended geographic or site locations for the provided coverage.

**BOX 12 COVERAGE:** Indicate the frequency and number of systems that will be provided to communicate with the composite system of the vehicle.

BOX 13 REMARKS: Provide any additional information that may be required to identify further any item on this page.

Date: 7-70

|   |               |                      |  |                  |
|---|---------------|----------------------|--|------------------|
| 1. CLASSIFICATION _____                   |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2600 |
| (PAGE TITLE)<br>OTHER SYSTEMS - GENERAL * |               | 4. DATE              |  | 5. DATE          |
| 6. PROGRAM TITLE                          |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |
| 9. ITEM NO.                               | 10. TEST CODE | 11. DISCUSSION *     |  |                  |
|   |               |                      |  |                  |

UOS FORM 2 G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\* The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2600—OTHER SYSTEMS - GENERAL

NOTE: This form is used to define systems required other than those specified in the 2100 through 2500 series of forms.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DISCUSSION: Define the requirement for systems not specified elsewhere in the document. Include support instrumentation required, data required, and coverage. Detailed requirements are specified on Pages 2605, 2610, and 2650.

Date: 7-70

|  |               |           |               |                      |              |                     |  |
|--|---------------|-----------|---------------|----------------------|--------------|---------------------|--|
| 1. CLASSIFICATION _____                                    |               |           |               | 2. REPLACES PAGE (S) |              | 3. PAGE NO. 2605    |  |
| 4. (PAGE TITLE)<br>OTHER SYSTEMS - SUPPORT INSTRUMENTATION |               |           |               | 5. GATE              |              | 6. DATE             |  |
| 7. PROGRAM TITLE   |               |           |               | 8. PROGRAM NO.       |              | 9. REVISION NO.     |  |
| 10. ITEM NO.   | 11. TEST CODE | 12. RA/SA | 13. NAME/TYPE | 14. MANUFACTURER     | 15. LOCATION | 16. PURPOSE/REMARKS |  |
|  |               |           |               |                      |              |                     |  |

REF. FORM 1-226  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 2605—OTHER SYSTEMS - SUPPORT INSTRUMENTATION

**NOTE:** This form is used to list special requirements for support instrumentation equipment which cannot be covered elsewhere in this document.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** RA/SA: State whether equipment is to be supplied by the Requesting Agency or by the Support Agency.

**BOX 11** NAME/TYPE: Enter the name and/or type of equipment required.

**BOX 12** MANUFACTURER: List the manufacturer and model number if the requirement demands a specific system or piece of equipment.

**BOX 13** LOCATION: Enter the specific location and/or area where the equipment is to be installed or used.

**BOX 14** PURPOSE/REMARKS: State the purpose for which the equipment is required. Enter remarks which will clarify the requirement.



Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |              |                                  |                     |
|--|--------------|----------------------------------|---------------------|
| (PAGE TITLE)<br>OTHER SYSTEMS - DATA * |              | 2. REPLACES PAGE (S)<br><br>DATE | 3. PAGE NO.<br>2610 |
| 5. PROGRAM TITLE                       |              | 6. PROGRAM NO.                   | 7. REVISION NO.     |
| 8. ITEM NO.                            | 9. TEST CODE | 10. DATA REQUIRED *              |                     |
|  |              |                                  |                     |

DD FORM 200 3/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 2610 - OTHER SYSTEMS - DATA

**NOTE:** This form is used to state any data requirements which do not conveniently fit or have not been covered or specified in the previous 2000-series pages.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **DATA REQUIRED:** Enter any data requirements which have not been covered in the previous 2000-series pages. State the various conditions of interval (range, altitude, time, etc.) data points, accuracy, etc., that are required. Include a statement of purpose of the data and any remarks or clarifying instructions.

Include the accuracy and priority of the data required.

a. Data Accuracy: Indicate the required reduced data accuracy value, i.e., 1 or in parts per million, and the class of the value. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

b. Data Priority: Indicate whether the data requirements are mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>OTHER SYSTEMS - COVERAGE * |              |                               |                                      | 2. REPLACES PAGE (S)                |  | 3. PAGE NO. 2560 |  |
|--|--------------|-------------------------------|--------------------------------------|-------------------------------------|--|------------------|--|
|  |              |                               |                                      | DATED                               |  | 4. DATE          |  |
| 5. PROGRAM TITLE                           |              |                               |                                      | 6. PROGRAM NO.                      |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                                | 9. TEST CODE | 10. TIME (GET) OR TIME PERIOD | 11. GEO LOCATION OR RECOMMENDED SITE | 12. COVERAGE<br>A. FREQUENCY B. NO. |  | 13. REMARKS      |  |
|  |              |                               |                                      |                                     |  |                  |  |

DDC FORM 12-225  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is a multi-purpose form. The User is required to enter the title] as shown above in the Page Title Box.

Preparation Instructions: Page 2560—OTHER SYSTEMS - COVERAGE

- NOTE:** This form is used to identify vehicle coverage for other systems not covered elsewhere in this document.
- BOX 1-9** Follow instructions for Page 1010.
- BOX 10** **TIME (GET) OR TIME PERIOD:** Enter the Ground Elapsed Time (GET) or time period during which the coverage is provided.
- BOX 11** **GEO LOCATION OR RECOMMENDED SITE:** Enter the recommended geographic or site locations for the provided coverage.
- BOX 12** **COVERAGE:** Indicate the frequency and number or systems that will be provided to communicate with the composite system of the vehicle.
- BOX 13** **REMARKS:** Provide any additional information that may be required to identify further any item on this page.



Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>GROUND COMMUNICATIONS - DETAIL |                    |         |        |                        |            | 2. REPLACES PAGE(S)<br>DATED        |        | 3. PAGE NO. 2710 |         |                            |       |  |
|--|--------------------|---------|--------|------------------------|------------|-------------------------------------|--------|------------------|---------|----------------------------|-------|--|
| 5. PROGRAM TITLE                               |                    |         |        |                        |            | 6. PROGRAM NO.                      |        | 7. REVISION NO.  |         |                            |       |  |
| 8.<br>ITEM NO.                                 | 9.<br>TEST<br>CODE | 10. USE |        | 11.<br>TYPE OF SERVICE | 12.<br>QTY | 13. LOCATION OF OPERATING TERMINALS |        |                  |         | 14.<br>PURPOSE AND REMARKS |       |  |
|  |                    | A. ADM  | B. OPS |                        |            | FROM                                |        | TO               |         |                            |       |  |
|  |                    |         |        |                        |            | A. STAB                             | B. LOC | C. RM            | A. STAB | B. LOC                     | C. RM |  |

UDS FORM R 227 NOV 79 REPLACES FORM R 227 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 2710 - GROUND COMMUNICATIONS - DETAIL

**NOTE:** This form is used to state requirements for all ground communications except longline, telephone and recording requirements. Either this page or page 2760, Ground Communications - Terminations, may be used, depending upon the type of presentation desired. (TV circuits are requested on this form, other details are shown on page 2800.) Separate sheets will be used for the following types of requested communications:

Teletype  
Voice  
High-Speed Data  
Point-to-Point Wire  
Broad-Band Data (other than video)  
Television  
Facsimile  
Narrow-Band Data  
Radio  
Public Address

Place one of the above identifiers in the Page Title box to further explain the main title.

BOX 1-9 Follow instructions for page 1010.

BOX 10 USE: Indicate the type, Administrative (ADMIN) [Box A] or Operations (OPS) [Box B], for which service is requested.

BOX 11 TYPE OF SERVICE: Enter the service desired such as voice transmission, CW, data transmission, paging, etc. Include the technical characteristics of the signal to be transmitted.

BOX 12 QTY: Enter the number of circuits required.

BOX 13 LOCATION OF OPERATING TERMINALS: Enter the location of the circuit terminals as indicated.

BOX 14 PURPOSE AND REMARKS: Briefly describe the purpose for which the circuits are required. Enter any special applications or other pertinent information. Indicate the transmission protection required, secure circuit or Encrypt for Transmission Only (EFTO).

Date: 7-70

| 1. CLASSIFICATION                         |             |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2720 |  |
|---|-------------|--------------|----------------------|--|------------------|--|
| (PAGE TITLE)                              |             |              | 4. DATE              |  | 5. REVISION NO.  |  |
| GROUND COMMUNICATIONS - NETWORK DRAWING * |             |              | DATED                |  |                  |  |
| 6. PROGRAM TITLE                          | 7. ITEM NO. | 8. TEST CODE | 9. PROGRAM NO.       |  |                  |  |
| 10. COMMUNICATIONS NETWORK DRAWING *      |             |              |                      |  |                  |  |

DD FORM 2720  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2720--GROUND COMMUNICATIONS - NETWORK DRAWING

NOTE: This form is used to describe graphically the network radio and wire communications plan.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 COMMUNICATIONS NETWORK DRAWING: The Requesting Agency will depict the communications layout for each ground communication facility requiring support. Indicate the type of communication, i.e., CW, voice, data facsimile, etc. List the station name horizontally near the distant terminal or remote station. Prepare a new drawing for each ground communications facility requiring support.

Date: 11-79

| 1. CLASSIFICATION  |              |       |    |    |    |    |    |    |    | 2. REPLACES PAGE (S) |    |    |    |    |    |    |                    |               |             | 3. PAGE NO. 2730 |  |                 |  |
|--|--------------|-------|----|----|----|----|----|----|----|----------------------|----|----|----|----|----|----|--------------------|---------------|-------------|------------------|--|-----------------|--|
| (PAGE TITLE)<br>GROUND COMMUNICATIONS - NETWORK TRANSMISSION |              |       |    |    |    |    |    |    |    | 4. DATE              |    |    |    |    |    |    |                    |               |             | 5. DATE          |  |                 |  |
| 6. PROGRAM TITLE   |              |       |    |    |    |    |    |    |    | 7. TEST CODE         |    |    |    |    |    |    |                    |               |             | 8. PROGRAM NO.   |  | 9. REVISION NO. |  |
| 10. ITEM NO.   | 11. STATIONS |       | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19                   | 20 | 21 | 22 | 23 | 24 | 25 | 26. TOTAL CIRCUITS | 16. REFERENCE |             | 17. REMARKS      |  |                 |  |
|  | A. FROM      | B. TO |    |    |    |    |    |    |    |                      |    |    |    |    |    |    |                    | A. PAGE NO.   | B. ITEM NO. |                  |  |                 |  |
|  |              |       |    |    |    |    |    |    |    |                      |    |    |    |    |    |    |                    |               |             |                  |  |                 |  |

U.S. FORM R 228  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 2730 - GROUND COMMUNICATIONS - NETWORK TRANSMISSION

NOTE: This form is used to outline longline communications requirements for voice and data transmission requirements broadly described and specified elsewhere. Longlines are considered as those circuits geographically separated so that they require leasing negotiations with the telephone company or appropriate communications carrier. Separate sheets will be used for the following type of communications requested (2730 section may be subdivided within the page number, e.g., 2731, 2732, etc.):

Teletype  
Voice  
High-Speed Data  
Low-Speed Data  
Broad-Band Data (Other than Video)  
Television  
Facsimile  
Narrow-Band Data

This information will be included in the Page Title box to further identify the main title.

BOX 1-9 Follow instructions for page 1010.

BOX 10 STATIONS: Enter the sites or centers where the information originates in Box A. Enter the sites or centers where the information is going in Box B. If the information flow is in both directions (duplex) either site may be entered in Box A. Use standard site letter designators.

BOX 11-24 CIRCUIT DESCRIPTION, CIRCUIT USE AND DATA DESCRIPTION: Starting with Box 11, enter in successive boxes, first the circuit description, then the circuit use, and finally the data description to accommodate all the items to be listed on the page. Although all headings will not be included on each page, the following listing order should be maintained:

Circuit Description

- Circuit Type (simplex, duplex, half-duplex, etc.)
- Special Classification (e.g., CASTS, LIEF, etc.)

c. Other - Specify in column or in Remarks (Box 27)

Circuit Use

- Voice Coordination
- Voice/Data
- Air to Ground
- Tracking
- Telemetry
- Command
- Operations Administration
- Meteorological
- Biomedical
- Recovery

k. Other - Specify in column or Remarks (Box 27)

Data Description (List only those not obvious)

- Analog
- Digital
- Data Rates
- Other - Specify in column or Remarks (Box 27)

An "X" should be placed in the boxes for each line item to indicate applicability to the box heading (a blank will then denote nonapplicability).

BOX 25 TOTAL CIRCUITS: Enter the total number of circuits needed to satisfy all the requirements within the line items.

BOX 26 REFERENCE: Enter the page number and the item number to provide information which might add to the understanding of the stated item on this form.

BOX 27 REMARKS: Enter any remarks in this column that will further clarify any entries that appear on this page.

Date: 7-70

| 1. CLASSIFICATION   |                  | 2. REPLACES PAGE (S)    |    | 3. PAGE NO. 2740 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|------------------|-------------------------|----|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| (PAGE TITLE)<br>GROUND COMMUNICATIONS - INTERCOMMUNICATIONS SYSTEMS |                  | DATED                   |    | 4. DATE          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| 5. PROGRAM TITLE  |                  | 9. TEST CODE            |    | 6. PROGRAM NO.   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|   |                  |                         |    | 7. REVISION NO.  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| 8. ITEM NO.   | 10. TYPE<br>INST | NET TITLE OR NUMBER     |    | A                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|   |                  | 11                      | 12 | 13               | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|   |                  | 35. STATION OR LOCATION |    | A                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |

JCS FORM R 220  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 2740—GROUND COMMUNICATIONS - INTERCOMMUNICATION SYSTEMS

NOTE: This form is used to state requirements for distribution within the operational intercommunication systems, that is, the connections required between the local area and the various sites normally satisfied by OIS, MITOC, MOPS, etc., type systems.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 TYPE INST: Indicate the end instrument type desired.  
Use the following symbols:

S -Standard  
SP-Special Purpose

W-Weather  
E - Explosion Proof

BOX 11-35 NET TITLE OR NUMBER:

Box A. Enter the net name, number, or function of the system. Place the name, number, or function in a vertical position in the space provided.

Box 3. Notes may be required to clarify the Box A entries. If so, enter a reference letter in Box B under the relevant net and explain in Reference Notes. Do not use the letters M or X as reference letters.

BOX 36

**STATION OR LOCATION:** Identify the location or station where the end instrument will be installed.

Box A. Notes may be required to clarify the station or location entries. If so, enter the reference letters in Box A, and explain in Reference Notes. Do not use the letters M or X as reference letters.

**MATRIX:** Show the relationship between this station and the net title or number by placing an "X" in the appropriate boxes. If only a monitor capability of a net function is required, place an "M" in appropriate boxes.

Notes may be required to clarify the relation between the news and station or locations. If so, enter a reference letter in the appropriate box in lieu of the X or M.

BOX 37

REFERENCE NOTES: Use this space to explain all letter designations assigned to the boxes on this page.





Date: 11-79

1. CLASSIFICATION

|   |          |              |              |                              |          |                     |              |
|---|----------|--------------|--------------|------------------------------|----------|---------------------|--------------|
| PAGE TITLE<br><b>GROUND COMMUNICATIONS - TERMINATIONS</b> |          |              |              | 2. REPLACES PAGE(S)<br>DATED |          | 3. PAGE NO.<br>2760 |              |
| 5. PROGRAM TITLE  |          |              |              | 6. PROGRAM NO.               |          | 7. REVISION NO.     |              |
| 8. ITEM NO.   | 10. CAP. | 11. SEE NOTE | 9. TEST CODE | 8. ITEM NO.                  | 10. CAP. | 11. SEE NOTE        | 9. TEST CODE |
| 12.   |          |              |              |                              |          |                     |              |

UDS FORM R 230 NOV 79 REPLACES FORM R 230 DATED JUL 70

1. CLASSIFICATION

[See next page for example.]

Preparation Instructions: PAGE 2760 - GROUND COMMUNICATIONS - TERMINATIONS

**NOTE:** This form is used to state requirements for all ground communications except longline, telephone and recording requirements. Either this page or page 2710, Ground Communications - Detail, may be used depending upon the type of presentation desired. Whenever possible, this form should be completed with the aid of circuit implementing personnel. Circuits will be cataloged as follows (2760 section may be subdivided within the page number, e.g., 2761, 2762, etc.):

Voice  
Point-to-Point Phone  
Teletype  
Telephone  
Television\*  
High-Speed Data  
Wide-Band Data  
Narrow-Band Data  
Facsimile  
Miscellaneous

\*Indicate the TV circuits and terminations required. Page 2800 will be used to request the TV cameras or monitors required and to stipulate the subject or coverage to be viewed.

**BOX 1-9** Follow instructions for page 1010, except item numbers are consecutive starting with 1 on each page within the 2760 section. Item numbers will be consecutive for each circuit starting with terminations on the left side of the form and continuing to the right side.

**BOX 10** CAP.: Enter one of the following communications circuit capability symbols in the appropriate box opposite each item number:

Symbol

T/O (Transmit Only) or  
R/O (Receive Only)  
A/T (Receive and Transmit)

TTY, Fax, TV, HSD, WBD, or  
Narrow-Band Data

H (Half Duplex)

TTY, Fax, TV, HSD, WBD, or  
Narrow-Band Data

F (Full Duplex)

TTY, Fax, TV, HSD, WBD, or  
Narrow-Band Data

T (Talk and monitor  
with headset only) or  
T/S (Talk and monitor  
with headset and  
broadcast speaker) or  
M (Monitor with headset  
only) or  
M/S (Monitor with broad-  
cast speaker)

Voice, RF OIS Voice, or  
Point-to-Point Phone

**BOX 11** SEE NOTE: Notes may be required to clarify the entries. If so, enter a reference number in this column and explain in a convenient unused space in Box 12.

**BOX 12** (Circuit Title and/or Termination Location): Enter requirements in block diagram style in this area using shadow lines as guides in typing the entries and in diagramming the circuits. Enter the circuit title near the vertical black line that establishes the left boundary of the form. If the title is long, it may extend through the shadow lines separating Boxes 9, 10 and 11. All circuits must be identified by their proper, official title to facilitate implementation and access control. If desired, the common name or abbreviation may be entered in parentheses after the proper title. Circuit numbers, call signs, or bit rates, if they are to be used, are to be entered on this line. Return to the left margin and enter the agency involved in the circuit termination below the circuit title, i.e., DOMS, ESMC, WSMC, GSFC, JSC, MSFC, etc.

The terminations within the agency's sphere of responsibility are then listed in the blank column to the right of Box 9. Each termination should have an item number, test code and an entry to show the capability. After completing all entries to which the named agency will respond, enclose all entries immediately below the named agency in a block. Extend, but only within the block, the vertical lines separating Boxes 8, 9, 10 and 11. Thus, the block is identified by the agency name appearing directly above it, and all terminations appearing within the block will be supported by that agency.

In like manner, construct blocks on the right half of the page so that terminations in each location are grouped together under the proper Supporting Agency's caption. In order to complete the circuit between agencies, an entry should be made at each applicable location by the Requesting Agency. An entry with no response code should be made when a termination of the circuit falls within the Requesting Agency's sphere of responsibility. On the right half of the page, the extension of the vertical line separating the blank box to the left of Box 8 and Box 8 forms the left limit of the block, and the vertical black line that establishes the right boundary of the form establishes the right limit of the block. Construct as many blocks as are necessary on the right half of the page, but no more than one block per agency. Connect all completed blocks with lines to complete the block diagram. If notes are required, enter them according to instructions for Box 11 above. These will usually be on the left side as only one block is constructed there. More than one circuit may be documented on the same page.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |          |              |              |                                     |                                  |  |                                   |  |
|---|----------|--------------|--------------|-------------------------------------|----------------------------------|--|-----------------------------------|--|
| PAGE TITLE)<br>GROUND COMMUNICATIONS - TERMINATIONS - VOICE |          |              |              |                                     | 2. REPLACES PAGE(S)<br><br>DATED |  | 3. PAGE NO. : 2760<br><br>4. DATE |  |
| 5. PROGRAM TITLE  |          |              |              |                                     | 6. PROGRAM NO.                   |  | 7. REVISION NO.                   |  |
| 8. ITEM NO.   | 10. CAP. | 11. SEE NOTE | 9. TEST CODE |                                     |                                  |  |                                   |  |
| 12. <u>RANGE SAFETY OFFICER (RSO)</u>                       |          |              |              |                                     |                                  |  |                                   |  |
| JSC   |          |              |              |                                     |                                  |  |                                   |  |
| TI  | T        |              | K 1-6        | MCC for dist.                       |                                  |  |                                   |  |
| ( E X A M P L E )   |          |              |              |                                     |                                  |  |                                   |  |
| KSC   |          |              |              |                                     |                                  |  |                                   |  |
| TZK   | T        | 1            | K 1-6        | CDSC for ext. from CCAFS X-Y to MCC |                                  |  |                                   |  |
| ETR   |          |              |              |                                     |                                  |  |                                   |  |
| E3  | T        |              | K 1-6        | CAAFS X-Y for dist.                 |                                  |  |                                   |  |
| E4  | T        |              | K 1-6        | RCC ETR Commander Console           |                                  |  |                                   |  |
| E5  | T        |              | K 1-6        | RCC RSO Console                     |                                  |  |                                   |  |
| T6 K-E  | T        |              | K 1-6        | CAAFS X-Y for ext. to CDSC & MCC    |                                  |  |                                   |  |
| G6.1 K-E  | M        |              | K 1-6        | CAAFS X-Y for ext. to GSFC          |                                  |  |                                   |  |
| GSFC  |          |              |              |                                     |                                  |  |                                   |  |
| E7G   | T        |              | K 1-6        | GSFC for dist.                      |                                  |  |                                   |  |
| E8G   | T        |              | K 1-6        | WLP ETR Representative pos.         |                                  |  |                                   |  |
| E9G   | T        |              | K 1-6        | BDA ETR Representative pos.         |                                  |  |                                   |  |
| G10   | M        |              | K 1-6        | GSFC NOCC                           |                                  |  |                                   |  |
| NOTE: One required at CDSC for extension only.              |          |              |              |                                     |                                  |  |                                   |  |

UDS FORM R 230 REPLACES FORM R 238 JUL 77  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

[The above form is an example of Form R 230, illustrating the block diagram format.  
See page 2760 (blank form illustration) for form preparation instructions.]

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>GROUND COMMUNICATIONS - RECORDINGS * |              |                         |                            | 3. REPLACES PAGE (S)      |         | 2. PAGE NO. 2770 |          |              |                |       |             |  |
|--|--------------|-------------------------|----------------------------|---------------------------|---------|------------------|----------|--------------|----------------|-------|-------------|--|
|  |              |                         |                            | DATED                     |         | 4. DATE          |          |              |                |       |             |  |
| 5. PROGRAM TITLE                                     |              |                         |                            | 6. PROGRAM NO.            |         | 7. REVISION NO.  |          |              |                |       |             |  |
| 8. ITEM NO.  | 9. TEST CODE | 10. STATION OR LOCATION | 11. RECORDING REQUIREMENTS | 12. AUDIO/VIDEO RECORDING |         |                  |          |              | 13. TIME CORRL |       | 14. REMARKS |  |
|  |              |                         |                            | A. START                  | B. STOP | C. A/V           | D. SPEED | E. REEL SIZE | A. YES         | B. NO |             |  |
|  |              |                         |                            |                           |         |                  |          |              |                |       |             |  |

MOD FORM R 222  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 2770 - GROUND COMMUNICATIONS - RECORDINGS

**NOTE:** This form is used to levy requirements for recording radio, television, telephone, intercom (MOPS, OIS) and other communications. To further clarify the title, enter the type of recording required in the Page Title box, i.e., television, telephone, etc.

BOX 1-9 Follow instructions for page 1010.

BOX 10 STATION OR LOCATION: Indicate the station or location that will record the communication data.

BOX 11 RECORDING REQUIREMENTS: List the data that is to be recorded, the method of recording and any special recording format.

BOX 12 AUDIO/VIDEO RECORDING:

Box A. START: Enter the time the recording is to be initiated, i.e., T-0; Acquisition of Signal [AOS], etc.

Box B. STOP: Enter the time the recording is to be terminated, i.e., T-350 sec, Loss of Signal [LOS], etc.

Box C. A/V: Enter the type of recording, audio (A), video (V), or both (AV).

Box D. SPEED: Enter the recording speed in inches per second or millimeters per second. Indicate units.

Box E. REEL SIZE: Enter the reel size limitations of the playback equipment, i.e., 3 in., 5 in., 7 in., 10-1/2 in., etc.

BOX 13 TIME CORRL: Check "Yes" or "No" block to indicate whether or not time correlation is required on the recording.

BOX 14 REMARKS: List any special instructions and/or remarks to clarify the recording requirements.

Date: 11-79

| 1. CLASSIFICATION _____                                 |  |              |          |            |         |         |              |                                     |         |                                   |                         |
|---|--|--------------|----------|------------|---------|---------|--------------|-------------------------------------|---------|-----------------------------------|-------------------------|
| PAGE TITLE)<br><b>GROUND COMMUNICATIONS - TELEPHONE</b> |  |              |          |            |         |         |              | 2. REPLACES PAGE (S)<br>DATED _____ |         | 3. PAGE NO. 2780<br>4. DATE _____ |                         |
| 5. PROGRAM TITLE  |  |              |          |            |         |         |              | 6. PROGRAM NO.                      |         | 7. REVISION NO.                   |                         |
| 12. CLASSIFICATION _____                                |  |              |          |            |         |         |              |                                     |         |                                   |                         |
| 8. ITEM NO.   |  | 9. TEST CODE | 10. TYPE | 11. NUMBER |         |         | 12. LOCATION |                                     |         |                                   | 13. PURPOSE AND REMARKS |
|   |  |              |          | A. CL.     | B. LINE | C. EXT. | A. STATION   | B. BLDG                             | C. ROOM | D. OTHER                          |                         |
|   |  |              |          |            |         |         |              |                                     |         |                                   |                         |

DD FORM 231  
JULY 70

Preparation Instructions: PAGE 2780 - GROUND COMMUNICATIONS - TELEPHONE

**NOTE:** This form is used by the Requesting Agency to list the requirements for telephone service.

**BOX 1-9** Follow instructions for page 1010.

**BOX 10** **TYPE:** Indicate the type, Administrative (ADM) or Operations (OPS), for which the telephone service is being requested.

**BOX 11** **NUMBER:** Enter the data required in the applicable columns.

**Box A. CL:** Indicate the class of service, based on contract, by placing an A, B, or C in this column.

**NOTE:** Three classes of telephone service are available to the Requesting Agency.

**Class A -** Service is government furnished at no charge and allows dialing access to surrounding communities.

**Class B -** Service is government furnished, but chargeable to the User at the local standard telephone company rate.

**Class C -** Service is government furnished at no charge to the User, but does not provide dialing access to local communities.

**Box B. LINE:** Enter the number of lines required for each class of service.

**Box C. EXT:** Enter the number of extensions per line required for each class of service.

**BOX 12** **LOCATION:** Enter in the appropriate column the location of the telephone service being requested by indicating the name or number of the center or station, the name/number of the building and the number of the room.

**BOX 13** **PURPOSE AND REMARKS:** Enter any clarifying remarks pertaining to the telephone service in this area.

**NOTE:** Information on this page may be used by the Support Agency for planning purposes and to serve as justification for plant expansion. Actual installation of instruments may require that additional forms be completed by the Requesting Agency. See regulations of the Support Agency which will receive this document.

Date: 7-70

|  |               |                      |  |                  |  |
|--|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                          |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 2800 |  |
| (PAGE TITLE)<br>OTHER COMMUNICATIONS - GENERAL * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                                 |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                                      | 10. TEST CODE | 11. DISCUSSION *     |  |                  |  |
|  |               |                      |  |                  |  |

DD FORM R 67A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 2800—OTHER COMMUNICATIONS - GENERAL

NOTE: This form is used to define general communication requirements not covered in other categories.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DISCUSSION: Define general requirements not specified on other communication forms.

Date: 11-79

## 1. CLASSIFICATION

|                                   |              |                    |                          |              |                               |                         |                                    |  |
|-----------------------------------|--------------|--------------------|--------------------------|--------------|-------------------------------|-------------------------|------------------------------------|--|
| (PAGE TITLE)<br><b>TELEVISION</b> |              |                    |                          |              | 2. REPLACES PAGE (S)<br>DATES |                         | 3. PAGE NO. <b>2805</b><br>4. DATE |  |
| 5. PROGRAM TITLE                  |              |                    |                          |              | 6. PROGRAM NO.                |                         | 7. REVISION NO.                    |  |
| 8. ITEM NO.                       | 9. TEST CODE | 10. TYPE EQUIPMENT | 11. SUBJECT TO BE VIEWED | 12. LOCATION | 13. PERIOD                    | 14. PURPOSE AND REMARKS |                                    |  |
|                                   |              |                    |                          |              |                               |                         |                                    |  |

UDS FORM R 232  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 2805 - TELEVISION

**NOTE:** This form is used by the Requesting Agency to specify operations, documentary and public relations television requirements. This equipment will be furnished, installed and maintained in accordance with existing agreements between the Support Agency and the Requesting Agency. All systems will be in accordance with the standards of the Electronics Industry Association (ETA) and the National Television Standards Committee.

Separate sheets may be used for operations, documentary and public relations requirements. This information will be included in Box 5, Program Title, to further identify the main title.

30X 1-9 Follow instructions for page 1010.

BOX 10 TYPE EQUIPMENT: Specify whether cameras and/or monitors are required to cover the items listed in Box 11 and whether the equipment is to be fixed (F), mobile (M), or portable (P).

BOX 11      SUBJECT TO BE VIEWED: Describe the object or action to be viewed, including size of area to be covered, direction of motion, if any, day or night coverage, other considerations, and further pertinent details that will help the planning engineers.

BOX 12 LOCATION: Give the location or area of usage of each item listed in Box 10.

BOX 13 PERIOD: Specify the period during which each item in Box 11 is to be viewed.

80X 14 PURPOSE AND REMARKS: State the purpose for which the item is needed. The more information that is furnished, the better the planning of proper equipment to meet the Requesting Agency's needs. (Requesting Agency's recommendations for obtaining the coverage desired and any other pertinent information may be included in this section; however, they will not be considered part of the requirements.)

Indicate whether transmission protection is required by adding Secure Circuit, Unsecure Circuit, or Encrypt for Transmission Only (EFTO).

Video recording instructions will be provided on page 2770. Ground Communications - Recordings, with reference to the appropriate item numbers. Video recordings disposition will be listed on page 4200, Data Disposition - General. Identify the recorded signal by using the item number of the requirement which describes the subject to be viewed.

Date: 11-79

[illegible]

Preparation Instructions: PAGE 2810 - TIMING

NOTE: This form is used by the Requesting Agency to list its requirements for training.

50X 1-9      Follow instructions for page 1010.

BOX 10      TIMING SIGNAL: List the IRIG standard format letter designator for the timing signal repetition rates required. (Refer to IRIG Document 104-70, IRIG Standard Time Formats.)

Box A. TIMING CODES REP RATES:

|               |        |     |       |      |
|---------------|--------|-----|-------|------|
| IRIG Format A | 1,000  | pps | width | code |
| IRIG Format B | 100    | pps | width | code |
| IRIG Format C | 2      | pps | width | code |
| IRIG Format D | 1      | pps | width | code |
| IRIG Format E | 10     | pps | width | code |
| IRIG Format G | 10,000 | pps | width | code |
| IRIG Format H | 1      | pps | width | code |

"See Foreword in IRIG Document 104-70.

Signals not listed above should be noted as such in the Remarks box (Box 13).

Box 8. CORREL ACC: List the correlations accuracy or tolerance limits in milliseconds or microseconds. Special requirements as to tolerable jitter may be listed in the Remarks box (Box 13). The synchronization of all timing signals with the master generator should be requested from the range receiving this document.

BOX 11 LOCATION OF END INSTRUMENT: Define the position where the range end instruments must be located.

Box A. STA: Enter the name or symbol of the station, center, base, etc.

Box 9. BLDG NO.: Enter the building number, if known.

Box C. ROOM NO.: Enter the room number, if known.

Box 0. RACK NO.: Enter the rack number, title, or name.

Box E. AMB TEMP: Indicate the maximum ambient temperature in degrees Fahrenheit of the location where the equipment will be operating.

Box F. SPACE AVAILABLE: Indicate the rack (R) or floor (F) space available in (R) vertical rack inches or (F) square feet, i.e., 310.5, = 2000 square feet, etc. This enables the timing system engineer to package the necessary equipment correctly.

BOX 12 REQUESTING AGENCY RECORDING INSTRUMENT OR TRANS-  
DUCER:

Box A. QTY: Enter the number of like instruments that will be used.

Box 8. TYPE AND MODEL: Indicate the type and model of instrument requiring timing signal input.

Box C. SPEED IPS: Indicate the recording speed in inches per second.

Box D. INPUT VOLT: Indicate the nominal input voltages required in volts. Specify d.c., if applicable.

Box E. INPUT OHMS: Give input impedance that the timing terminal equipment will be required to work into. Indicate an impedance for each input to be used. If this value is a result of combinations of transducers, describe the load arrangement in the Remarks box (Box 13).

Box F. FREQ RESP: Enter the frequency response in hertz per second.

BOX 13      REMARKS: Enter any additional information that may  
be required to clarify a line item on this page.

Date: 7-70

| 1. CLASSIFICATION         |  |  |  | 2. REPLACES PAGE (S)             |  | 3. PAGE NO. 2820               |  |
|---------------------------|--|--|--|----------------------------------|--|--------------------------------|--|
| (PAGE TITLE)<br>SEQUENCER |  |  |  | 4. DATE                          |  | 5. DATE                        |  |
| 6. PROGRAM TITLE          |  |  |  | 7. PROGRAM NO.                   |  | 8. REVISION NO.                |  |
| 9. ITEM NO.               |  | 10. TEST CODE                            |  | 11. SIGNAL SEQUENCE              |  | 12. ELECTRICAL CHARACTERISTICS |  |
|                           |  | 13. EVENTS                               |  |                                  |  |                                |  |
|                           |  | 14. AUTOMATIC FUNCTIONS CONTROL CIRCUITS |  | 15. AUTOMATIC HOLD FIRE CIRCUITS |  | 16. START FROM L/D             |  |
|                           |  |  |  |                                  |  | 17. STOP FROM L/D              |  |
|                           |  |  |  |                                  |  | 18. GTS                        |  |
|                           |  |  |  |                                  |  | 19. VOLTS                      |  |
|                           |  |  |  |                                  |  | 20. AMPS                       |  |
|                           |  |  |  |                                  |  | 21. DC OR C/S                  |  |
| 19. REMARKS               |  |  |  |                                  |  |                                |  |

LOS FORM W 234  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 2820—SEQUENCER

**NOTE:** This form is used by the Requesting Agency to list requirements for automatic sequential control.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **EVENTS:** Enter the functions to be initiated or terminated at a predetermined time during the countdown.

**Box A. AUTOMATIC FUNCTION CONTROL CIRCUITS:** List those functions which are sequences for control by the automatic function control circuits. Each automatic function control circuit is capable of automatically initiating or terminating an external function at a predetermined time during the countdown. The time of either initiation or termination is determined by the path panel program. Enter the functions to be controlled, in chronological order based on start times, e.g., start gyro, stop LOX topping, start spin rockets, start recorder, etc.

**Box B. AUTOMATIC HOLD FIRE CIRCUITS:** List the functions preselected for sampling by the automatic hold-fire control circuits. Each automatic hold fire circuit provided is capable of sampling the off or on condition of an external function. The sampling time of these circuits is determined by preselecting the sampling interval on the patch panel. Each circuit has an "Automatic-Manual" control. In the automatic condition, if the malfunction of an external circuit clears during the sampling time, countdown will automatically restart. In the manual condition, the countdown can be restarted only by the sequence start button. Enter the functions to be sampled. These functions should be incorporated into the chronological order (based on start times) which were generated by the listing of automatic function control circuits.

**BOX 11** **SIGNAL SEQUENCE:** In Boxes A and B, enter the time in hours (H), minutes (M), and seconds (S) with respect to T-0 that the functions listed in Box 10 are initiated.

**BOX 12** **ELECTRICAL CHARACTERISTICS:** This box is provided to list the electrical characteristics of the signals used to execute the functions listed in Box 10.

**Box A.** Enter the quantity of make or break contacts that will occur at the time listed in Box 11, and enter the letter "M" or "B" in the appropriate column to indicate a make or break condition. If the electrical characteristics differ for each make or break contact, enter each on a separate line.

**Boxes B-D.** Enter the excitation voltage, current rating, and type of signal in Boxes B, C, and D, as required.

**BOX 13** **REMARKS:** Enter additional information or remarks that may be required to clarify further any line item on this page.



Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>VISUAL COUNTDOWN AND STATUS INDICATORS</b> |              |                                 |                   |        |                 |        |                    |        |                | 2. REPLACES PAGE (S) |                                   | 3. PAGE NO. 2830 |       |             |             |
|---|--------------|---------------------------------|-------------------|--------|-----------------|--------|--------------------|--------|----------------|----------------------|-----------------------------------|------------------|-------|-------------|-------------|
| 4. DATE   |              |                                 |                   |        |                 |        |                    |        |                | 5. PROGRAM NO.       |                                   | 7. REVISION NO.  |       |             |             |
| 1. PROGRAM TITLE  |              |                                 |                   |        |                 |        |                    |        |                |                      |                                   |                  |       |             |             |
| 8. ITEM NO.   | 9. TEST CODE | 10. INFORMATION TO BE DISPLAYED | 11. OPER PER FROM |        | 12. OPER PER TO |        | 13. OPER PER TOTAL |        | 14. INDICATORS |                      | 15. LOCATION OF VISUAL INDICATORS |                  |       |             | 16. REMARKS |
|   |              |                                 | A. MIN            | B. SEC | A. MIN          | B. SEC | A. MIN             | B. SEC | A. QTY         | B. MTG               | A. STA                            | B. SLOS          | C. RM | D. LOCATION |             |
|   |              |                                 |                   |        |                 |        |                    |        |                |                      |                                   |                  |       |             |             |

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 2830—VISUAL COUNTDOWN AND STATUS INDICATORS

**NOTE:** This form is used by the Requesting Agency to list its requirements for visual countdown and status indicators. Carefully plan the entries on this page so that all requirements can be clearly and completely displayed in the proper sequence, line, and column.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **INFORMATION TO BE DISPLAYED:** State the information that is to be displayed, i.e., countdown information (range or sequencer count), sequencer status information, Range Safety Officer hold fire, master hold, Superintendent of Range Operations proceed, SRO hold fire, and other function and status items.

**BOX 11-13** **OPERATION PERIOD FROM: TO: TOTAL:** Enter the start, stop, and total time to the nearest minute and second (or tenth of a second, if applicable).

**BOX 14**

**INDICATORS:**

**QTY:** Enter the number of indicators required to display the information entered in Box 10.

**TYPE MTG:** Enter the letter P for panel-mounted or B for bulkhead-mounted.

**BOX 15**

**LOCATION OF VISUAL INDICATOR:** State the location of the indicator as closely as possible. The station column can include names or symbols of stations participating in the operation.

**BOX 16**

**REMARKS:** Enter additional information that may be required to identify further any line items on this page.

Date: 7-70

|                   |               |                         |  |                  |  |
|-------------------|---------------|-------------------------|--|------------------|--|
| 1. CLASSIFICATION |               | 2. REPLACES PAGE (S)    |  | 3. PAGE NO. 3000 |  |
| 4. DATE           |               | 5. PROGRAM NO.          |  | 6. DATE          |  |
| 7. PROGRAM TITLE  |               | 8. PROGRAM NO.          |  | 9. REVISION NO.  |  |
| 10. ITEM NO.      | 11. TEST CODE | 12. DATA REQUIREMENTS * |  |                  |  |

UDS FORM 9 G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Page Instructions: PAGE 3000—REAL TIME - DATA - GENERAL

**NOTE:** The real time data section of the UDS has been designed to provide for the most complex programs. It includes all known categories of real time data requirements and provides for supplemental documentation where this may be determined to be necessary.

**PARTICULAR ATTENTION SHOULD BE PAID TO THE BOX 10 INSTRUCTIONS OF THIS FORM TO INSURE PROPER DEFINITION AND PRESENTATION OF THE REQUIREMENTS IN THIS SECTION.**

This form is used to describe the real time data requirements. Real time data are defined as data which are available, in usable form, in time to permit their use in affecting the test while it is in progress. Real time data are considered as falling in two categories, generally referred to as (1) real time digital data and (2) real time analog data.

Real time digital data is the product of the Real Time Data System (RTDS). RTDS support is provided when the need for precise real time data is critical, as in positioning vehicles used in re-entry studies, controlling multiple drones in formation flights, etc. In this application, flight trajectory and vehicle performance data gathered by several instrumentation systems are transmitted to a large-scale digital computer, where they are processed and analyzed. The output is then transmitted as vehicle control or correction commands and sensor positioning data, and/or is displayed for impact prediction, flight safety decisions, and other purposes.

Real time analog data are data produced by a particular sensor system (e.g., radar, telemetry) and displayed as needed for flight safety decisions, aircraft and drone vectoring, observation of vehicle performance, etc. These data are nearly always in analog form and are essentially raw data except for such corrections or limited processing as may be provided within the sensor system.

BOX 1-9 Follow instructions for Page 1010.

**BOX 10 DATA REQUIREMENTS:** Describe the real time data requirements of the program, mission or test in sufficient detail to insure complete understanding of the organization and requirements of this section. Identify those categories of requirements to be addressed although specifics for that category are not presently available. Large programs or tests should identify all supplemental documentation by title, number, and minimum contents. Include broad outlines wherever possible. Small programs or tests will not require all of the categories of real time data requirements. Those requirements that are to be covered and those that are not applicable are to be identified.

Request for display of real-time analog data as defined here should be included with the basic data/support reference, (i.e., telemetry displayed in section 2200, vehicle trajectory in section 2100, etc.).

Date: 7-70

## 1. CLASSIFICATION

|  |              |                      |  |                  |  |
|--|--------------|----------------------|--|------------------|--|
| PAGE TITLE                                   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3010 |  |
| REAL TIME - FLIGHT CONTROL/SUPPORT CENTERS * |              | DATE                 |  | 4. DATE          |  |
| 5. PROGRAM TITLE                             |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                                  | 9. TEST CODE | 10. DESCRIPTION *    |  |                  |  |
|  |              |                      |  |                  |  |

205 5 1/2 1/2 1/2

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3010- REAL TIME - FLIGHT CONTROL/SUPPORT CENTERS

NOTE: This form is used to describe the functions of each flight control/support center with respect to the program/mission.

BOX 1-9 Follow instructions for Page 1010.

BOX 11      DESCRIPTION: Show how each agency controls or supports the program or mission through its general or unique capabilities.

Date: 7-70

## 1. CLASSIFICATION

| (PAGE TITLE)                                   |                    | 2. REPLACES PAGE(S) | 3. PAGE NO.      |
|--|--------------------|---------------------|------------------|
| READ TEST - FEEDBACK CONTROL DATA ACQUISITION* |                    | DATES               | 3020             |
|  |                    |                     | 4. DATE          |
| 5. PROGRAM TITLE                               |                    | 6. PROGRAM NO.      | 7. REVISIONS NO. |
| 8.<br>ITEM NO.                                 | 9.<br>TEST<br>CODE | 10. DESCRIPTION *   |                  |
|  |                    |                     |                  |

U.S. FORM R G/A  
JULY 70

## 1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

## Preparation Instructions: PAGE 3020-REAL TIME - FLIGHT CONTROL DATA ACQUISITION

**NOTE:** This form is used to specify the control data display and control requirements and configurations at the remote sites and control centers.

BOX 1-9 Follow instructions for Page 1010.

Specify the control data display and control requirements for each mission and the data display and control configurations at the remote sites and the control centers. Information relevant to console and display requirements shall be placed in Page 3030, Real Time Displays and Consoles.

List telemetry parameters and sample rates to be included in telemetry communications formats required in Page 1049 Real Time-Telemetry Data Formats Detail.

If supplementary format documentation is to be required from the Requesting Agency, state the documentation requirements including title, number, and minimum contents.

Date: 7-70

|                            |               |                      |  |                  |  |
|----------------------------|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION          |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3030 |  |
| 4. DATE                    |               | 5. PROGRAM NO.       |  | 6. REVISION NO.  |  |
| 7. PROGRAM TITLE           |               |                      |  |                  |  |
| 8. DISPLAYS AND CONSOLES * |               |                      |  |                  |  |
| 9. ITEM NO.                | 10. TEST CODE |                      |  |                  |  |

DD FORM 100-10  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 1 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3030--REAL TIME - DISPLAYS AND CONSOLES

NOTE: This form is used to list requirements relating to real time displays and consoles.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DISPLAYS AND CONSOLES: State in narrative format information relevant to console requirements. The type information shall include the supplier of the console (Requesting or Support Agency); calibration requirements; degree of flexibility for change of display, functions, etc.; and, if supplied by the Requesting Agency, the signal inputs required from the Support Agency for driving the displays, functions, etc.

[illegible]

**NOTE:** This form is used to carefully plan all requirements so that they can be clearly and completely displayed in the proper sequence, line and column.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **PERIOD REQUIRED:** Enter by fiscal quarter and year the period(s) during which the requirements must be supported.

**BOX 11** **INFORMATION TO BE DISPLAYED:** State the information that is to be displayed, i.e., countdown information, sequencer status information, hold/fire, master hold, and other information and status time.

**BOX 12** **PERIOD OF OPERATION:** Enter the start, stop, and total time to the nearest minute and second (or tenth of a second, if applicable).

**BOX 13** **INDICATORS:**

**QTY:** Enter the number of indicators required to display the information entered in Box 11.

**TYPE:** Enter the type of display, i.e., plotting board, audio/visual, strip chart, etc.

**BOX 14**      **LOCATION OF VISUAL INDICATOR:** State the location of the indicator as closely as possible. Under LOCATION, give position of display in the designated area, i.e., west wall, console number, rack or panel, or numbered location of display (such as plotting board No. 1).

**BOX 16** SEE NOTE: When additional space is required to clarify any line item, enter the letter(s) A-ZZZ on the applicable line and enter the same letter(s) on a blank or lined spare form. After typing in the same title as on this page and a page number larger (3031.1, 3031.2, etc.), enter the necessary clarifying information after the note letter.

Date: 7-70

|   |              |                                |              |         |            |                      |             |                  |  |
|---|--------------|--------------------------------|--------------|---------|------------|----------------------|-------------|------------------|--|
| 1. CLASSIFICATION   |              |                                |              |         |            |                      |             |                  |  |
| (PAGE TITLE)<br><b>REAL TIME - CONSOLE COMMAND PANELS</b> |              |                                |              |         |            | 2. REPLACES PAGE (S) |             | 3. PAGE NO. 3032 |  |
|   |              |                                |              |         |            | DATED                |             | 4. DATE          |  |
| 5. PROGRAM TITLE  |              |                                |              |         |            | 6. PROGRAM NO.       |             | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. CONSOLE TITLE AND LOCATION | 11. FUNCTION | 12. PBI | 13. A. VEN | B. SYS               | C. FUNCTION | 14. REMARKS      |  |
|   |              |                                |              |         |            |                      |             |                  |  |

UOS FORM R 301  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 3032- REAL TIME - CONSOLE COMMAND PANELS

- NOTE:** This form is used to identify the functions which are to be performed by the command console. This form is to be completed whether the console is to be provided by the Requesting or Support Agency.
- FOX 1-9** Follow instructions for Page 1010.
- BOX 10** **CONSOLE TITLE AND LOCATION:** Enter the console title. List the recommended stations at which the console should be employed.
- BOX 11** **FUNCTION:** Identify the command labels which are to be used.
- BOX 12** **PBI (Push Button Indicator):** List the alpha or numerical identifier for each push button indicator.

**BOX 13**

**CODE:** Enter the digital command code for each function listed including vehicle and system addresses.

**BOX 14**

**REMARKS:** If required, use this space to clarify line entries. If additional space is required, enter the letter(s) A-ZZZ on the applicable line and enter the same letter(s) on a blank or lined spare form. After typing in the same title as on this page and a page number larger (3032.1, 3032.2, etc.), enter the necessary clarifying information after the note letter.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>REAL TIME - CONSOLE ANALOG RECORDERS</b> |              |                                      |          | 2. REPLACES PAGE (S) |             | 3. PAGE NO. <b>3033</b> |  |
|---|--------------|--------------------------------------|----------|----------------------|-------------|-------------------------|--|
|   |              |                                      |          | DATED                |             | 4. DATE                 |  |
| 5. PROGRAM TITLE  |              |                                      |          | 6. PROGRAM NO.       |             | 7. REVISION NO.         |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. MEASUREMENT<br>A. NUMBER B. NAME | 11. LINK | 12. SOURCE           | 13. PEN NO. | 14. REMARKS             |  |
|   |              |                                      |          |                      |             |                         |  |

UDS FORM R 302  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 3033—REAL TIME - CONSOLE ANALOG RECORDERS

**NOTE:** This form is used to identify the real time airborne measurements required. This form is to be completed whether the console is to be provided by the Requesting or Support Agency.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **MEASUREMENT:** Enter the airborne measurement name and number to be recorded.

**BOX 11** **LINK:** Identify the RF link by which the measurement is transmitted.

**BOX 12** **SOURCE:** Identify the telemetry SCO (Sub Carrier Oscillator) in which the measurement is transmitted.

**BOX 13**

**PEN NO:** Specify the desired recorder pen number for each measurement.

**BOX 14**

**REMARKS:** Use this column to identify the console of which the recorder will be a part, its recommended location, paper speed, calibration requirements, and other clarifying remarks.



Date: 7-70

|  |             |              |                      |                 |                  |
|--|-------------|--------------|----------------------|-----------------|------------------|
| 1. CLASSIFICATION _____                        |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. 3034 |
| (PAGE TITLE)<br>REAL TIME - CONSOLE DRAWINGS - |             |              | DATED                |                 | 4. DATE          |
| 5. PROGRAM TITLE                               | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 7. REVISION NO. |                  |
| 10. CONSOLE DRAWINGS*                          |             |              |                      |                 |                  |

AFS FORM 3034  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3034—REAL TIME - CONSOLE DRAWINGS

NOTE: This form is to be used to provide sketches or layouts of the consoles and associated panels.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 CONSOLE DRAWINGS: Provide a sketch of the desired or actual (if supplied by the Requesting Agency) layouts of the consoles and associated panels.

Date: 11-79

|  |              |                            |  |                  |
|--|--------------|----------------------------|--|------------------|
| 1. CLASSIFICATION _____                              |              | 2. REPLACES PAGE (S)       |  | 3. PAGE NO. 3040 |
| (PAGE TITLE)<br>REAL TIME - DATA FORMATS - GENERAL * |              | DATE                       |  | 4. DATE          |
| 5. PROGRAM TITLE                                     |              | 6. PROGRAM NO.             |  | 7. REVISION NO.  |
| 8. ITEM NO.  | 9. TEST CODE | 10. DATA FORMATS - GENERAL |  |                  |
|  |              |                            |  |                  |

IDS FORM R G/A  
JULY 79

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.

Preparation Instructions: PAGE 3040 - REAL TIME - DATA FORMATS - GENERAL

NOTE: This form is used to describe the real-time data formats.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DATA FORMATS - GENERAL: Briefly describe the data formats which are to be used for transmission of tracking, telemetry, command and other real-time data to the Requesting Agency. If supplementary format documentation is required, state the documentation requirements including title, number and minimum contents.

Date: 7-70

|  |             |              |                      |                  |                  |
|--|-------------|--------------|----------------------|------------------|------------------|
| 1. CLASSIFICATION _____                                    |             |              | 2. REPLACES PAGE (S) |                  | 3. PAGE NO. 3041 |
| (PAGE TITLE)<br>REAL TIME - TRACKING DATA FORMAT CONTROL * |             |              | 4. DATE              |                  | 5. DATE          |
| 6. PROGRAM TITLE   | 7. ITEM NO. | 8. TEST CODE | 9. PROGRAM NO.       | 10. REVISION NO. |                  |
| 11. FORMATS *  |             |              |                      |                  |                  |

DD FORM 1010  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 3 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3041 - REAL TIME - TRACKING DATA FORMAT CONTROL

NOTE: This form is used to specify the formats in which real time tracking data is to be transmitted to the Requesting Agency. Data formats for existing low-speed character systems and high-speed bit systems are required. Words 1 and 2 of the format are reserved by the range for a message label and the time word.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 FORMATS: Specify the real-time tracking data required and whether high-speed, low-speed or high- and low-speed transmission is required. State whether raw or smooth data is to be provided. Identify the Requesting Agency station(s) to which the data is to be transmitted. Concisely state what each bit or character of the format is to be used for. Provide a sketch for each format. If supplementary documentation is used for defining formats required, specifically identify documents and applicable sections/paragraphs.



THE

**Figure 1**

|   |              |                                       |                                 |
|---|--------------|---------------------------------------|---------------------------------|
| (PAGE TITLE)<br>REAL TIME - TELEMETRY DATA FORMAT CONTROL * |              | 2. REPLACES PAGE (S)<br><br>DATED     | 3. PAGE NO. 3042<br><br>4. DATE |
| 5. PROGRAM TITLE  |              | 6. PROGRAM NO.                        | 7. REVISION NO.                 |
| 8. ITEM NO.   | 9. TEST CODE | 10. TELEMETRY DATA FORMAT - GENERAL * |                                 |
|   |              |                                       |                                 |

UCS FORM R G/A  
JULY 70

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\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 3 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

## Preparation Instructions: PAGE 3042—REAL TIME - TELEMETRY DATA FORMAT CONTROL

NOTE: This form is used to describe in general terms the real time telemetry data formats.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10**      **TELEMETRY DATA FORMAT—GENERAL:** Specify the real time telemetry data required and identify the Requesting Agency station(s) to which the data is to be transmitted. If supplementary documentation is used for defining the data train characteristics, specifically identify document and applicable sections/paragraphs.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                     |                      |                                     |         |                     |             |
|---|--------------|---------------------|----------------------|-------------------------------------|---------|---------------------|-------------|
| 1. (PAGE TITLE)<br><b>REAL TIME - TELEMETRY DATA FORMATS - DETAIL</b> |              |                     |                      | 2. REPLACES PAGE (S)<br>DATED _____ |         | 3. PAGE NO.<br>3043 |             |
| 5. PROGRAM TITLE  |              |                     |                      | 6. PROGRAM NO.                      |         | 7. REVISION NO.     |             |
| 8. ITEM NO.   | 9. TEST CODE | 10. MEASUREMENT NO. | 11. MEASUREMENT NAME | 12. SPS                             | 13. WRD | 14. FRM             | 15. REMARKS |
|   |              |                     |                      |                                     |         |                     |             |

NO. 3043  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 3043—REAL TIME — TELEMETRY DATA FORMATS — DETAIL

- NOTE:** This form is used to list telemetry data requirements and location of data in real time data train.
- BOX 1-9** Follow instructions for Page 1010.
- BOX 10** **MEASUREMENT NO.:** Enter the measurement number of the airborne data required in real time.
- BOX 11** **MEASUREMENT NAME:** Enter the measurement name of the airborne data required in real time.
- BOX 12** **SPS (Samples Per Second):** Enter the required relayed sampling rate of each measurement.
- BOX 13** **WRD:** Assign word number for each measurement for location of data within the data frame.

**BOX 14**

**FRM:** Assign frame number for each measurement for location of data within the data train.

**BOX 15**

**REMARKS:** Specify overhead type data that is to be included in the data train, e.g., sync words, source code, destination code, frame count, etc. Identify location of overhead data train. Use space for other clarifying information. If supplementary documentation is used for specifying data train arrangement, specifically identify document and applicable sections/paragraphs.

Date: 7-70

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                                   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3044 |  |
| (PAGE TITLE)<br>REAL TIME - COMMAND DATA FORMAT CONTROL * |              | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE  |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. FORMATS *        |  |                  |  |
|   |              |                      |  |                  |  |

UOS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3044—REAL TIME — COMMAND DATA FORMAT CONTROL

NOTE: This form is used to list all high- and low-speed formats required for command purposes.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 Specify all high-speed and low-speed formats required for command purposes. For programming purposes, include all vehicle-payload command lists which provide the data structures for each command. Should the command system be complex and standardized, describe all standard interface formats. Identify mission-test format specifics that are variable.

Requirements for command computer programs that may be necessary at remote sites to standardize the command system or to implement a command system for a specific mission or test should be described in Page 3045, Remote Site Data Processing.

Reference any unique requirements for consoles and displays and describe the console and display configuration in Page 3030, Real Time Displays and Consoles. If supplemental format documentation is required, state the documentation requirements including title, number and minimum contents.

Date: 7-70

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                                   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3045 |  |
| (PAGE TITLE)<br>REAL TIME - REMOTE SITE DATA PROCESSING * |              | DATED                |  | 4. DATE          |  |
| 5. PROGRAM TITLE  |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. DESCRIPTION *    |  |                  |  |
|   |              |                      |  |                  |  |

REF ID: A674  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 3045—REAL TIME — REMOTE SITE DATA PROCESSING

NOTE: This form is used to specify the computer programs necessary for remote site data processor operations in support of a mission or test. This includes programs for accepting data for site display, processing, or retransmission of raw or processed data to control centers or other sites.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 Specify the programs that comprise system interfaces in the various systems such as command telemetry, tracking, and composite.

If supplemental documentation is required, state the documentation requirements including title, number and minimum contents.

Date: 7-70

|  |              |                      |                  |
|--|--------------|----------------------|------------------|
| 1. CLASSIFICATION _____                    |              |                      |                  |
| (PAGE TITLE)<br>REAL TIME - DATA TESTING * |              | 2. REPLACES PAGE (S) | 3. PAGE NO. 3050 |
|  |              | DATED                | 4. DATE          |
| 5. PROGRAM TITLE                           |              | 6. PROGRAM NO.       | 7. REVISION NO.  |
| 8. ITEM NO.                                | 9. TEST CODE | 10. DATA TESTING *   |                  |
|  |              |                      |                  |

DD FORM 100-10/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 3050 - REAL TIME - DATA TESTING**

**NOTE:** This form is used to define the test requirements necessary to assure capability to transmit and receive real time data.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** DATA TESTING: Briefly describe the validation testing required to assure the ability to transmit and receive real time telemetry, tracking, and command data. If supplementary documentation is required, state the documentation requirements including title, number, and minimum contents.



Date: 7-70

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                     |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3060 |  |
| PAGE TITLE<br>REAL TIME - DATA INTERFACES * |              | DATED                |  | 4. DATE          |  |
| 5. PROGRAM TITLE                            |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                                 | 9. TEST CODE | 10. DESCRIPTION *    |  |                  |  |
|   |              |                      |  |                  |  |

3060-101-101A  
1-1-70

1. CLASSIFICATION \_\_\_\_\_

[ \* The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10. ]

Preparation Instructions: PAGE 3060 - REAL TIME - DATA INTERFACES

- NOTE: This form is used for real time data requirements not covered elsewhere in the 3000-series pages.
- BOX 1-9 Follow instructions for Page 1010.
- BOX 10 Briefly describe the data interfaces which evolve due to requirements for transmission and processing of real-time data.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

UDS FORM R 306      REPLACES FORM R 306 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 3061 - REAL TIME - DATA INTERFACE CRITERIA

**NOTE:** This form is used to provide the Support Agency with information needed to determine interface requirements when data generated by Requesting Agency instrumentation is to be transmitted and/or processed by the Support Agency.

Box C. REC V: Indicate voltage(s) required for receiver operations based on above outputs less transmission losses.

Box D. FRQ/FR: State frequency, frequencies, or frequency range of operations as applies.

Box E. SNR: State signal-to-noise ratio (SNR) required at the receiver.

30X 1-9 Follow instructions for page 1010.

90X 10 PERIOD REQD: Enter by quarter (QR) and calendar year (CY) the period(s) during which the requirements are to be supported.

**BOX 15**    **DIGITAL DATA:** If Box 11 indicates analog data, omit this item. If this data is digital, indicate the following:

30X 11 DATA TYPE: Indicate general type of data, i.e.,  
use "A" for analog, "D" for digital.

Block 1. State the binary 1 indication, e.g., NRZ-6 V. If other than a nonreturn to zero voltage level, illustrate on page 3062.

BOX 12                      SOURCE:

Box A. LOCATION: Indicate geographical locations of the data source.

Block 0. State information as in Block 1 above for binary zero.

Box 8. IMP - MAG-TYPE: Give the magnitude of the output impedance of the source and under type indicate whether this output is balanced or single-ended. Use "B" for balanced, "S" for single-ended.

Box A. OUTPUT FORMAT: State general output format, e.g., 8-bit, parallel, serial, etc.

BOX 13      TERMINATION: Indicate information as in Box 11 above  
for the receiving termination.

**Box B. FRM RATE:** State frame rate or rates of data for parallel data, i.e., the rate at which parallel words are transmitted. (For serial data, the frame rate is equal to the bit rate.)

BOX 14 ANALOG DATA: If Box 11 indicates digital data, omit this item. If this data is analog, indicate the following:

**Box C. CLOCK:** Indicate any clock outputs requiring transmission and/or available for use. If data equipment requires external interrupts, so indicate. Use page 3062 for illustrations as required.

Box A. WAVEFORM: The general waveshape, e.g., variable frequency sine wave, variable d.c. voltage, etc. If this waveform is other than a sine wave, illustrate on page 3062, Data Interface Criteria - Drawing.

Box 9. V OUT: State output voltage, voltages or voltage ranges as applies.

Box D. ERROR RATE: Indicate transmission error rate tolerance.

Date: 7-70

|  |             |                      |                |                  |
|--|-------------|----------------------|----------------|------------------|
| 1. CLASSIFICATION _____  |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. 3062 |
| (PAGE TITLE)<br>REAL TIME - DATA INTERFACE CRITERIA DRAWINGS * |             | 4. DATE              |                | 5. DATE          |
| 6. PROGRAM TITLE   | 7. ITEM NO. | 8. TEST CODE         | 9. PROGRAM NO. | 10. REVISION NO. |
| 11. DATA HANDLING SYSTEM DRAWING *                             |             |                      |                |                  |

DD FORM R 7/70  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3062 - REAL TIME - DATA INTERFACE CRITERIA DRAWINGS

NOTE: This form is used to graphically portray the data handling system(s) described in Page 3061.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DATA HANDLING SYSTEM DRAWING: Draw a simple block diagram showing the complete data-flow circuit. Start at the upper left-hand corner of the page with the basic instrument that collects the data, and show all intermediary data collection points between the basic data collection instrument and the final recipient. Indicate quantities of each type circuit required.

Date: 7-70

| 1. CLASSIFICATION |               | 2. REPLACES PAGE (S)            |  | 3. PAGE NO. 3070 |  |
|-------------------|---------------|---------------------------------|--|------------------|--|
| 4. DATE           |               | 5. PROGRAM TITLE                |  | 6. PROGRAM NO.   |  |
| 7. REVISION NO.   |               | 8. DATA COMPUTER REQUIREMENTS * |  |                  |  |
| 9. ITEM NO.       | 10. TEST CODE |                                 |  |                  |  |

100 FORM 3-70/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 3 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3070—REAL TIME - DATA COMPUTER

NOTE: This form is used to describe the computer requirements for real time data processing.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DATA COMPUTER REQUIREMENTS: Briefly describe the data processing which will be required to support the real time data requirements specified within the 3000-series pages.

|                         |  |                      |  |                  |  |
|-------------------------|--|----------------------|--|------------------|--|
| 1. CLASSIFICATION       |  | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3080 |  |
| 4. DATE                 |  | 5. DATE              |  | 6. DATE          |  |
| 7. PROGRAM TITLE        |  | 8. PROGRAM NO.       |  | 9. REVISION NO.  |  |
| 10. DATA DISTRIBUTION * |  |                      |  |                  |  |

## 1. CLASSIFICATION

Preparation Instructions: PAGE 3080-REAL TIME - DATA DISTRIBUTION

BOX 10 DATA DISTRIBUTION: Enter the real time data distribution requirements.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |              |                                   |                                 |
|--|--------------|-----------------------------------|---------------------------------|
| (PAGE TITLE)<br>PHOTOGRAPHIC - GENERAL * |              | 2. REPLACES PAGE (S)<br><br>DATED | 3. PAGE NO. 3100<br><br>4. DATE |
| 5. PROGRAM TITLE                         |              | 6. PROGRAM NO.                    | 7. REVISION NO.                 |
| 8. ITEM NO.                              | 9. TEST CODE | 10. DESCRIPTION *                 |                                 |
|  |              |                                   |                                 |

DD FORM 100-100  
JULY 79

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.]

Preparation Instructions: PAGE 3100 - PHOTOGRAPHIC - GENERAL

NOTE: This form is used to state general photographic requirements in narrative form.

BOX 10 DESCRIPTION: Describe the requirements for photographic coverage including documentary, engineering, PAI, PIO, tracking, etc.

BOX 1-9 Follow instructions for page 1010.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

UCS FORM # 307  
JULY 70

## 1. CLASSIFICATION

Preparation Instructions: PAGE 3110 - PHOTOGRAPHIC - DETAIL

**NOTE:** This form is used to identify detailed photographic requirements and to establish their recommended processing instructions. Separate sheets will be issued for engineering, documentary and PEO requirements. This information will be included in the Page Title box to further identify the main title. The number of copies and disposition must be included on page 4200, Data Disposition - General, of this document.

BOX 1-3 Follow instructions for page 1010.

30X 10      LOCATION: Enter the location at which the desired photographic coverage is required.

BOX 11 CAMERA FORMAT: Enter the size of film required,  
i.e., 4x5, 50mm, 35mm, 16mm, etc.

30X 12      F/L: Enter the focal length of the lens to be used to obtain the required coverage.

BOX 13      FPS: Enter the desired frame rate for motion picture coverage in frames/second.

BOX 14 FILM TYPE LOAD: Enter the type film required and whether black and white or color coverage is required. Include, where applicable, the film load required, i.e., 3 400-foot reels, 1 100-foot reel, etc.

BOX 15 INTERVAL: Enter the time interval or function during which coverage is required.

BOX 16 F/T: Enter an "F" or a "T" to indicate whether a fixed or tracking camera is required.

80X 17 EXP: Enter the exposure required. If flame exposure is desired, indicate by entering the temperature of the flame in degrees Kelvin ( $^{\circ}$  K).

BOX 18 TIMING: For engineering photography only, place an "X" in this box if timing is required. If a special or specific type of timing is required, it must be outlined and specified in the Remarks box (Box 19); otherwise, the requestor will be furnished timing as available at the Support Agency.

BOX 19      REMARKS: Enter additional information or remarks that may be required to clarify further any entry on this page. Include the recommended processing instructions, if applicable.

Date: 7-70

|  |              |                          |  |                  |  |
|--|--------------|--------------------------|--|------------------|--|
| 1. CLASSIFICATION _____                    |              | 2. REPLACES PAGE (S)     |  | 3. PAGE NO. 3200 |  |
| (PAGE TITLE)<br>METEOROLOGICAL - GENERAL * |              | DATED                    |  | 4. DATE          |  |
| 5. PROGRAM TITLE                           |              | 6. PROGRAM NO.           |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                                | 9. TEST CODE | 10. GENERAL DISCUSSION * |  |                  |  |
|  |              |                          |  |                  |  |

U.S. FORM 2 6/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3200—METEOROLOGICAL - GENERAL

NOTE: This form is used to establish general and/or special meteorological requirements for the program/mission and which cannot be adequately shown on other pages of this document.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 GENERAL DISCUSSION: The discussion should state general requirements for meteorological or climatological data that will be required for a program or mission. This discussion may include:

- The general requirements for the services of the DOD, United States Weather Bureau, and Foreign Weather Services.
- The application of climatological data to operational test program problems.
- Evaluation of data requirements to meet flight problems.
- The analysis of accuracy and representation of environmental data required for flight evaluation purposes.



Date: 7-70

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3210 |  |
| (PAGE TITLE)<br>METEOROLOGICAL - MINIMA * |              | DATED                |  | 4. DATE          |  |
| 5. PROGRAM TITLE                          |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                               | 9. TEST CODE | 10. MINIMA *         |  |                  |  |
|   |              |                      |  |                  |  |

UDS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 3210—METEOROLOGICAL - MINIMA

**NOTE:** This form is used to specify values of meteorological elements which could preclude successful accomplishment of test objectives or which could jeopardize an unprotected vehicle.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** MINIMA: Specify here the critical values of meteorological elements such as cloud cover, surface or upper wind velocities or shears, icing, sea state, etc., which could preclude successful accomplishment of test objectives.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                   |  |                      |              |                         |  |
|---|--------------|-------------------|--|----------------------|--------------|-------------------------|--|
| (PAGE TITLE)<br><b>METEOROLOGICAL - FORECASTS</b> |              |                   |  | 2. REPLACES PAGE (S) |              | 3. PAGE NO. 3220        |  |
| 5. PROGRAM TITLE                                  |              |                   |  | 6. PROGRAM NO.       |              | 7. REVISION NO.         |  |
| 8. ITEM NO.                                       | 9. TEST CODE | 10. TIME REQUIRED | 11. FORECAST PARAMETERS<br>(TYPE DATA, SURFACE, UPPER AIR, ALTITUDE, INTERVAL) | 12. VALID TIME       | 13. LOCATION | 14. PURPOSE AND REMARKS |  |
|   |              |                   |  |                      |              |                         |  |

JD5 FORM R 308  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: Page 3220--METEOROLOGICAL - FORECASTS

**NOTE:** This form is used to state the requirements for forecasts valid at or near T-0. Detailed forecasts should not be requested for more than three days prior to the valid time. The forecast services will encompass meteorological and/or climatological parameters.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **TIME REQUIRED:** State here the number of days prior to, or after, launch day, (F -3D, F +1D, etc.) and on launch day, the number of hours prior to, or after, launch (T -10H, T +8H, etc.) that the forecast is required.

**BOX 11** **FORECAST PARAMETERS:** State here parameters or weather elements for which a forecast is required (e.g., precipitation and/or obstruction to vision; amount, base and top of clouds; horizontal visibility, surface winds, sea and swell, vertical wind shear, jet stream, turbulence, freezing level, contrail level, etc.) Use abbreviations listed in instructions for Page 3220 Box 10. Parameters should be separated into surface and upper air. The range or altitude interval and maximum altitude for upper air parameters should be specified.

**BOX 12** **VALID TIME:** List here the number of hours a forecast will be required to remain valid, e.g., T -4H to T -0.

**BOX 13** **LOCATION:** Specify the location, geographical area, or flight area for which the forecast is required, e.g., impact, launch, burnout, re-entry, recovery, etc.

**BOX 14** **PURPOSE AND REMARKS:** State the purpose to which the forecasts will be put. Be specific (to calculate drag, to predict drift on recovery of nose cone, etc.). Enter any other remarks necessary to clarify any entry made in the other columns.

Date: 11-79

|   |  |              |                   |  |  |  |  |  |  |                      |  |  |  |                         |  |
|---|--|--------------|-------------------|--|--|--|--|--|--|----------------------|--|--|--|-------------------------|--|
| 1. CLASSIFICATION                             |  |              |                   |  |  |  |  |  |  | 2. REPLACES PAGE(S)  |  | 3. PAGE NO. 3230                       |  |                         |  |
| (PAGE TITLE)<br>METEOROLOGICAL - OBSERVATIONS |  |              |                   |  |  |  |  |  |  | DATED                |  | 4. DATE                                |  |                         |  |
|   |  |              |                   |  |  |  |  |  |  | 6. PROGRAM NO.       |  | 7. REVISION NO.                        |  |                         |  |
| 5. PROGRAM TITLE                              |  |              |                   |  |  |  |  |  |  | 13. DATA<br>PRIORITY |  | 14. DATA ACCURACY<br>A. VALUE B. CLASS |  | 15. PURPOSE AND REMARKS |  |
| 8. ITEM NO.                                   |  | 9. TEST CODE | 10. DATA REQUIRED | 11. SURFACE<br>A. TIME - MIN B. LOCATION |  | 12. UPPER AIR<br>A. TIME - MIN B. LOCATION C. INTERVAL D. ALT - KM |  |  |  |                      |  |  |  |                         |  |
|   |  |              |                   |  |  |  |  |  |  |                      |  |  |  |                         |  |

UDS FORM R 309 REPLACES FORM R 309 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

Preparation Instructions: PAGE 3230 - METEOROLOGICAL - OBSERVATIONS

Notes: This form is used to request those meteorological parameters required to analyze data received before, during, or after the test or operation. The type of meteorological observations will be included in the Page Title box to further identify the main title.

30X 1-9 Follow instructions for page 1010.

BOX 10 DATA REQUIRED: Specify those parameters which are desired and also indicate requirements for computed data. Use the abbreviations as listed for the following:

Temp (Temperature)  
Pres (Pressure)  
R.H. (Relative Humidity)  
Wind  
Visb (Visibility)  
C.C. (Cloud Coverage)  
Precip (Precipitation)  
S.O.S. (State of Sea)  
Dens (Density)  
R.I. (Refraction Index)

State additional data requirements immediately after those entered in Box 1C.

BOX 11 SURFACE: For the parameters listed in Box 10, include the following:

Box A. TIME-MIN.: Specify the time, in minutes, the data is required, e.g., T-120, T-60, T-30, T-0, etc.

**Box 8. LOCATION:** Specify the location or geographical area at which the data is required, e.g., launch, impact, flight area, etc.

BOX 12 UPPER AIR: For the parameters listed in Box 10, indicate the following:

Box A. TIME-MIN.: Specify the time, in minutes, the data is required, e.g., T-120, T-60, T-30, T-0, etc.

Box 8. LOCATION: Specify the location, geographical area, or flight interval at which the data is required, e.g., launch, burnout, re-entry, impact, etc.

**Box C. INTERVALS:** Specify the intervals or increments of altitude at which the data shall be collected and/or recorded, e.g., 500 m. 1 km, etc.

Box D. ALT-KM: Specify the maximum altitude or limits of the altitudes in 1,000 meters (km) at which the data is required at the time listed above, e.g., 100, 150, 200, 50-100, 100-200, etc.

BOX 13 DATA PRIORITY: Indicate whether the data requirement is mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

BOX 14 DATA ACCURACY: Indicate in column 14A the required reduced data accuracy value: (1 mb, 3 mb, 5 kts, 2%, 5%). Indicate in column 14B the class of the value noted in column 14A. (See volume 2, subparagraph 1.7.6.3, for further explanation of accuracy class.)

BOX 15 PURPOSE AND REMARKS: State the engineering purpose for the data and any remarks necessary to clarify the entries made in the other columns or any particular requirement not covered elsewhere.

Date: 7-70

|   |             |                      |                |                  |
|---|-------------|----------------------|----------------|------------------|
| 1. CLASSIFICATION _____   |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. 3240 |
| (PAGE TITLE)<br>METEOROLOGICAL - INSTRUMENTATION LOCATION DIAGRAM * |             | DATED                |                | 4. DATE          |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE         | 8. PROGRAM NO. | 9. REVISION NO.  |
| 10. DIAGRAM *   |             |                      |                |                  |

UDS FORM R G/C  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 5 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3240--METEOROLOGICAL - INSTRUMENTATION LOCATION DIAGRAM

- NOTE: This form is used if special requirements exist for the location of meteorological instruments.
- BOX 1-9 Follow instructions for Page 1010.
- BOX 10 DIAGRAM: Enter diagrams that indicate the location of special instrumentation where diagrams are necessary to clarify requirements.

Date: 11-79

|   |               |             |                             |  |  |                   |                         |  |
|---|---------------|-------------|-----------------------------|--|--|-------------------|-------------------------|--|
| 1. CLASSIFICATION                                   |               |             |                             |  | 2. REPLACES PAGE (S)                   |                   | 3. PAGE NO. 3250        |  |
| 4. PAGE TITLE<br>METEOROLOGICAL - SPACE ENVIRONMENT |               |             |                             |  | 5. DATES                               |                   | 6. DATE                 |  |
| 7. PROGRAM TITLE                                    |               |             |                             |  | 8. PROGRAM NO.                         |                   | 9. REVISION NO.         |  |
| 10. ITEM NO.  | 11. TEST CODE | 12. STATION | 13. PERIOD<br>A. FROM B. TO |  | 14. OBSERVATIONS OR FORECASTS REQUIRED | 15. DATA PRIORITY | 16. PURPOSE AND REMARKS |  |
|   |               |             |                             |  |  |                   |                         |  |

LDS FORM R 310  
JULY 70

## 1. CLASSIFICATION

Preparation Instructions: PAGE 3250 - METEOROLOGICAL - SPACE ENVIRONMENT

NOTE: This form is used to indicate the Requesting Agency's requirements for space environmental support. The statement of requirements should be specific.

30X 1-9      Follow instructions for page 1010.

BOX 10 STATION: Enter the location for which the requirement exists.

90X 11 PERIOD: Give the period for which information is required.

BOX 12 OBSERVATION OR FORECASTS REQUIRED: State require-  
ment in specific terms. Support available con-  
sists of:

3. Observations (specify whether for real-time or post analysis)

- (1) Solar Flares
- (2) Geomagnetic Indices
- (3) Solar Radio Flux (specify frequency)
- (4) Solar Wind Velocity
- (5) Ionospheric Electron Density (specify location and altitudes)
- (6) Energetic Particles (specify type and energy range)
- (7) Ionograms from Range Stations (specify rate at which 35mm negative should be taken)
- (8) Ionospheric Radio Propagation Conditions (vertical and oblique incidence sounder observations)

## 5. Forecasts

- (1) Solar Flares (indicate importance class)
- (2) Proton Events
- (3) Geomagnetic Indices
- (4) 10 cm Solar Radio Flux
- (5) Ionospheric Electron Density (specify location)
- (6) Ionospheric Radio Propagation Conditions (specify circuits, paths, or trunks)

BOX 13 DATA PRIORITY: Indicate whether the data requirement is mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

BOX 14 PURPOSE AND REMARKS: State the purpose. If real-time observations or "quick-look" reports are required, give the position title and operational telephone number of the recipient.

Date: 7-70

|  |              |                           |  |                  |  |
|--|--------------|---------------------------|--|------------------|--|
| 1. CLASSIFICATION _____                                |              | 2. REPLACES PAGE (S)      |  | 3. PAGE NO. 3260 |  |
| (PAGE TITLE)<br>METEOROLOGICAL - CONSULTANT SERVICES * |              | DATED                     |  | 4. DATE          |  |
| 5. PROGRAM TITLE                                       |              | 6. PROGRAM NO.            |  | 7. REVISION NO.  |  |
| 8. ITEM NO.  | 9. TEST CODE | 10. CONSULTANT SERVICES * |  |                  |  |
|  |              |                           |  |                  |  |

UDS FORM 0 G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes \* and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3260—METEOROLOGICAL - CONSULTANT SERVICES

**NOTE:** This form is used to state requirements for meteorological consultant services. These services encompass areas such as the application of climatological data to specific operational problems concerned with the test program at the range, evaluation of data requirements to meet specific flight evaluation needs, and analyses of the accuracy and representation of environmental data requested for flight evaluation purposes.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **CONSULTANT SERVICES:** Enter the requirements for meteorological or climatological consultant service and advice. Information for use in advance planning of test schedules, design of test equipment, and other meteorological environmental data for the range are available.

Date: 11-79

|                                      |               |                      |  |                  |  |
|--------------------------------------|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION                    |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3300 |  |
| (PAGE TITLE)<br>RECOVERY - GENERAL * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                     |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                          | 10. TEST CODE | 11.                  |  |                  |  |

DD FORM R 7/79  
JULY 79

1. CLASSIFICATION

[The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.]

Preparation Instructions: PAGE 3300 - RECOVERY - GENERAL

**NOTE:** This form is used to enter general information concerning requirements, flight plans, operations, procedures, etc., pertaining to recovery of personnel and/or equipment. For aircraft-type programs this section may also include landing operations support information and requirements.

BOX 1-9 Follow instructions for page 1010.

**BOX 10** Enter general information concerning requirements necessary to support recovery operations. General requirements such as recovery areas, salvage and disposition, written reports required, handling equipment, drawings, and general communications requirements should be included on this page. Detailed communications requirements, i.e., type of transmission format, source, destinations, etc., must be defined in the communications section of this document.

Date: 7-70

## I. CLASSIFICATION

|  |              |               |                              |                            |                             |                           |             |
|--|--------------|---------------|------------------------------|----------------------------|-----------------------------|---------------------------|-------------|
| (PAGE TITLE)<br>RECOVERY - SHIPS AND AIRCRAFT COVERAGE |              |               |                              | 3. REPLACES PAGE (S)       |                             | 2. PAGE NO. 3310          |             |
| 5. PROGRAM TITLE                                       |              |               |                              | 4. DATE                    |                             | 6. PROGRAM NO.            |             |
|  |              |               |                              | 7. REVISION NO.            |                             |                           |             |
| 8. ITEM NO.  | 9. TEST CODE | 10. AREA CODE | 11. NUMBER AND TYPE OF SHIPS | 12. SHIP ACCESS TIME (HRS) | 13. NO. AND TYPE RESCUE A/C | 14. A/C ACCESS TIME (HRS) | 15. REMARKS |
|  |              |               |                              |                            |                             |                           |             |

311 ב יסדר 5730  
JULY 70

## 1. CLASSIFICATION

Preparation Instructions: PAGE 3310-RECOVERY - SHIPS AND AIRCRAFT COVERAGE

NOTE: This form is used to list locations and access times of recovery ships and aircraft.

**BOX 14**

**A/C ACCESS TIME (HRS):** Enter the total time in hours from notification of the location of the landing point to the time when the aircraft has the paramedic team in the water with the flotation collar attached to the spacecraft with the hatch open and first level medical assistance given, if required.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 AREA CODE: Enter in this column the area code and/or designation.

BOX 11 NUMBER & TYPE OF SHIPS: List the number and type of ships required for rescue in areas designated in Box 10.

**BOX 15**

REMARKS: Enter in this column any information that will further explain any entries on this page.

BOX 12 SHIP ACCESS TIME (HRS): Enter the total time in hours from notification of the landing point to the time when the ship arrives at the landing point and the spacecraft is placed on board.

**BOX 13**      **NUMBER & TYPE RESCUE A/C:** List the number and type of aircraft needed for adequate rescue coverage in the area designated in Box 10.



**Table 1**

|   |           |              |        |                     |                               |        |                                    |         |
|---|-----------|--------------|--------|---------------------|-------------------------------|--------|------------------------------------|---------|
| (PAGE TITLE)<br><b>RECOVERY - ITEMS TO BE RECOVERED</b> |           |              |        |                     | 2. REPLACES PAGE (S)<br>DATED |        | 3. PAGE NO. <b>3320</b><br>4. DATE |         |
| 5. PROGRAM TITLE  |           |              |        |                     | 6. PROGRAM NO.                |        | 7. REVISION NO.                    |         |
| 8.  | 9.        | 10.          | 11.    | 12. DIMENSIONS - FT |                               |        | 13.                                | 14.     |
| ITEM NO.  | TEST CODE | NOMENCLATURE | WT-LBS | A. LENGTH           | B. WIDTH                      | C. DIA | LIFE FORM / HAZARDS                | REMARKS |
|   |           |              |        |                     |                               |        |                                    |         |

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JULY 70

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Preparation Instructions: PAGE 3320-RECOVERY - ITEMS TO BE RECOVERED

NOTE: This form is used to specify and describe items which must be recovered, including flight hardware, re-entry vehicle, spacecraft, etc. Handling procedures for equipment requiring special fixtures, jigs, tools, etc., should be provided to the recovery agencies in accordance with applicable regulations.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 NOMENCLATURE: Enter the name or nomenclature of the items to be recovered.

BOX 11 WT-LBS: Enter the weight of the item in pounds.

BOX 12 DIMENSIONS-FT: Enter the overall length, width, and the largest diameter, if applicable.

BOX 13

**LIFE FORM/HAZARDS:** If applicable, indicate the type of life forms: human, primate, or spores, contained in the recoverable item. Identify any object which is classified or which is potentially dangerous to recovery personnel, for example, ordnance and hypersonic items, pressurized vessels, and toxic materials.

**BOX 14**

REMARKS: Enter additional information, sequence of events, recovery aids, etc., which will aid in the identification and recovery of the specified objects.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                  |              |              |                      |                         |                  |  |
|---|--------------|------------------|--------------|--------------|----------------------|-------------------------|------------------|--|
| PAGE TITLE<br><b>RECOVERY - SALVAGE AND DISPOSITION</b> |              |                  |              |              | 2. REPLACES PAGE (S) |                         | 3. PAGE NO. 3330 |  |
|   |              |                  |              |              | DATED                |                         | 4. DATE          |  |
| 5. PROGRAM TITLE  |              |                  |              |              | 6. PROGRAM NO.       |                         | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. NOMENCLATURE | 11. WT - LBS | 12. LOCATION | 13. DESCRIPTION      | 14. PURPOSE AND REMARKS |                  |  |
|   |              |                  |              |              |                      |                         |                  |  |

U.S. FORM R 313  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 3330—RECOVERY - SALVAGE AND DISPOSITION**

**NOTE:** This form is used to identify and describe components which may have to be salvaged and disposed of in case of inadvertent impact on land or in water.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **NOMENCLATURE:** Enter the name or designation of the component(s) to be salvaged or disposed of.

**BOX 11** **WT-LBS:** Enter the weight of the component in pounds.

**BOX 12** **LOCATION:** Enter the location of the component in the vehicle, e.g., first stage engine section, nose cone, etc.

**BOX 13**

**DESCRIPTION:** Give a brief description of the item, including such items as length, width, shape, etc. If drawings are available, enter title and number.

**BOX 14**

**PURPOSE AND REMARKS:** Enter the purpose of the salvage action, the disposition of salvaged components, and any special handling instructions. Identify each object which is classified or which is potentially dangerous to recovery personnel.

Date: 7-70

## 1. CLASSIFICATION

[illegible]

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## 1. CLASSIFICATION

[ \*The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

## Preparation Instructions: PAGE 3340-RECOVERY - PLANNED AREAS

**NOTE:** This form is used to list requirements for planned areas.

BON 1-4 Follow instructions for Page 1010.

**BOX 10**      **AREA CODE:** Enter the recovery area code and/or designation.

BOX 11 POSITION: Enter the latitude and longitude of the area given in Box 10.

BOX 12 LANDING AREA SIZE: Enter the lengths of the major and minor axes of each area in nautical miles

BOX 13 LAUNCH AZ: Enter the launch azimuth for the mission involved.

BOX 14      REV: Enter the revolution number.

BOX 15 ITEMS TO BE RECOVERED: Enter names of the items of flight hardware to be recovered.

BOX 16 REMARKS: Enter any special remarks or instructions as may be applicable

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>RECOVERY - CONTINGENCY AREAS * |              |               |              |  |                       | 2. REPLACES PAGE (S) |         | 3. PAGE NO. 3350          |             |
|--|--------------|---------------|--------------|--|-----------------------|----------------------|---------|---------------------------|-------------|
| 4. DATE  |              |               |              |  |                       | 5. PROGRAM NO.       |         | 7. REVISION NO.           |             |
| 1. PROGRAM TITLE                               |              |               |              |  |                       | 6. PROGRAM NO.       |         | 7. REVISION NO.           |             |
| 8. ITEM NO.                                    | 9. TEST CODE | 10. AREA CODE | 11. POSITION |  | 12. LANDING AREA SIZE | 13. LAUNCH AZ        | 14. REV | 15. ITEMS TO BE RECOVERED | 16. REMARKS |
| A. LAT   | B. LONG      |               |              |  |                       |                      |         |                           |             |
|  |              |               |              |  |                       |                      |         |                           |             |

DDG FORM 9 314  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is a multi-purpose form. The User is required to enter the title as shown above in the Page Title Box.

**Preparation Instructions: PAGE 3350-RECOVERY - CONTINGENCY AREAS**

**NOTE:** This form is used to list requirements for contingency areas.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **AREA CODE:** Enter the recovery area code and/or designation.

**BOX 11** **POSITION:** Enter the latitude and longitude of the area given in Box 10.

**BOX 12** **LANDING AREA SIZE:** Enter the lengths of the major and minor axes of each area in nautical miles.

**BOX 13** **LAUNCH AZ:** Enter the launch azimuth for the mission involved.

**BOX 14** **REV:** Enter the revolution number.

**BOX 15** **ITEMS TO BE RECOVERED:** Enter names of the items of flight hardware to be recovered.

**BOX 16** **REMARKS:** Enter any special remarks or instructions as may be applicable.

Date: 7-70

## 1. CLASSIFICATION

[illegible]

UDS FORM R 315  
JULY 70

## 1. CLASSIFICATION

Preparation Instructions: PAGE 3360—RECOVERY - ABORT AREAS

NOTE: This form is used for listing all recovery areas necessary for aborts.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 AREA CODE: Enter the area code and/or designation in this box.

BOX 11 LOCATION OF AREA: Enter the location of area designated in Box 10.

BOX 12 AREA SIZE: Enter the lengths of the major and minor axes in nautical miles.

BOX 13 POSITION: Enter the latitude and longitude of the area.

**BOX 14**      **REMARKS:** Enter specific instructions as required.

Date: 7-76

|  |               |                      |  |                  |  |
|--|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                              |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3400 |  |
| 4. (PAGE TITLE)<br>OTHER TECHNICAL SUPPORT - GENERAL |               | 5. DATES             |  | 6. DATE          |  |
| 7. PROGRAM TITLE                                     |               | 8. PROGRAM NO.       |  | 9. REVISION NO.  |  |
| 10. ITEM NO.   | 11. TEST CODE | 12. DISCUSSION *     |  |                  |  |
|  |               |                      |  |                  |  |

U.S. GOVERNMENT  
JULY 75

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

**Preparation Instructions: PAGE 3400—OTHER TECHNICAL SUPPORT - GENERAL**

**NOTE:** This form is used by the Requesting Agency to specify general support requirements that are not included in the other technical categories.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DISCUSSION:** Define general technical support requirements not previously covered.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>OTHER TECHNICAL SUPPORT - AIRCRAFT</b> |                          |                               |                        | 2. REPLACES PAGE(S)<br>DATED _____                       |   | 3. PAGE NO. 3410     |   |    |   |   |   |    |   |   |   |    |   |   |   |
|---|--------------------------|-------------------------------|------------------------|--|---|----------------------|---|----|---|---|---|----|---|---|---|----|---|---|---|
| 5. PROGRAM TITLE _____                                    |                          |                               |                        | 5. TEST CODE _____                                       |   | 5. PROGRAM NO. _____ |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               |                        | 7. REVISION NO. _____                                    |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
| 2. ITEM NO.   | 10. A/C SOURCE FUNC/REQ. | 11. EQUIP. TO BE INSTL IN A/C | 12. ITEM               | 13. NUMBER OF AIRCRAFT AND AIRCRAFT FLYING HOURS/QUARTER |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               |                        | CY   |   |                      |   | CY |   |   |   | CY |   |   |   | CY |   |   |   |
|   |                          |                               |                        | 1  | 2 | 3                    | 4 | 1  | 2 | 3 | 4 | 1  | 2 | 3 | 4 | 1  | 2 | 3 | 4 |
|   |                          |                               | A NO. OF AIRCRAFT      |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | B NO. OF FLIGHTS/A/C   |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | C FLIGHT HRS/TEST      |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | D TOTAL FLYING HRS/QTR |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | E STATION              |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | F FLIGHT PATH          |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | G SPEED RANGE - KTS    |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | H ALTITUDE             |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | A NO. OF AIRCRAFT      |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | B NO. OF FLIGHTS/A/C   |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | C FLIGHT HRS/TEST      |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | D TOTAL FLYING HRS/QTR |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | E STATION              |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | F FLIGHT PATH          |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | G SPEED RANGE - KTS    |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | H ALTITUDE             |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | A NO. OF AIRCRAFT      |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | B NO. OF FLIGHTS/A/C   |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | C FLIGHT HRS/TEST      |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | D TOTAL FLYING HRS/QTR |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | E STATION              |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | F FLIGHT PATH          |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | G SPEED RANGE - KTS    |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |                          |                               | H ALTITUDE             |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |
| 14. REMARKS   |                          |                               |                        |  |   |                      |   |    |   |   |   |    |   |   |   |    |   |   |   |

U.S. FORM R 316 REPLACES FORM R 316 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 3410 - OTHER TECHNICAL SUPPORT - AIRCRAFT

**NOTE:** This form is used to list requirements for aircraft. Do not list range aircraft required for normal telemetry reception, frequency protection, etc., since the requirement in those is for data or a service; those requirements should be entered in the 2000-2400-series pages without reference to aircraft. Aircraft needs for airborne instrumentation tests, drop tests, user provided equipment, etc., should be listed here.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **AIRCRAFT SOURCE FUNCTION/REQUIREMENT:** State whether the aircraft will be furnished by the Requesting or Support Agency. Enter the function the aircraft will perform such as airborne instrumentation (give type), escort, photo, administrative, etc. State the aircraft support that will be required, i.e., transient services, communications, etc.

BOX 11 **EQUIPMENT TO BE INSTALLED IN AIRCRAFT:** Enter the specialized equipment to be installed in the aircraft. Indicate who will perform the installation (I), maintenance (M) and who will furnish (F) this equipment. Give an estimate of the time needed to install and remove (R) each item of equipment. For example, a piece of special telemetry equipment furnished, maintained and installed by XX Company is needed and it takes 20 hours to install and 5 hours to remove. The entry would be made as "Telemetry set MOD, XYZ, XX Co, F, I, M, 1-20, R-5."

BOX 12 **ITEM H:** Enter appropriate unit of measure for altitude.

BOX 13 **NUMBER OF AIRCRAFT AND AIRCRAFT FLYING HOURS/QUARTER:** Enter by quarter, the following information:

Item A. **NUMBER OF AIRCRAFT:** Enter the number of aircraft required to support the function and purpose.

Item B. **NO. OF FLIGHTS/A/C:** Enter the number of flights anticipated per aircraft.

Item C. **FLIGHTS HRS/TEST:** Enter the maximum flight duration in hours that will be required for an average single test. Flight time should include time flown prior to T-time, estimated hold time and post-test vehicle or missile time, as applicable. Times should be based on desired aircraft speed.

Item D. **TOTAL FLYING HRS/QTR:** Enter the total flying hours. This value is obtained by multiplying the numbers in Box 13A by Box 13B by Box 13C.

Item E. **STATION:** Enter the station(s), center(s), or range station number(s) involved.

Item F. **FLIGHT PATH:** If the flight path encompasses many stations, list the range stations such as 3-7. If the stations involved vary during the test period, indicate such for each quarter. If the flight path is more involved, enter narrative description in the Remarks box (Box 14) or as a note in the applicable form pages.

Item G. **SPEED RANGE - KTS:** Enter minimum and maximum speeds acceptable in knots.

Item H. **ALTITUDE:** Enter minimum and maximum altitudes acceptable, i.e., 1000-foot increments or equivalent metric unit.

BOX 14 **REMARKS:** Use this box to clarify or explain any information stated elsewhere. Include the aircraft type and identification number, if known. Indicate whether the range can expect to use the aircraft for other missions between tests.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |              |                                    |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|--|--------------|------------------------------------|-------------------------------|----|------------------------------|---|---|----|---|------------------|----------------------|----|---|---|---|
| (PAGE TITLE)<br>OTHER TECHNICAL SUPPORT - SEACRAFT |              |                                    |                               |    | 2. REPLACES PAGE(S)<br>DATED |   |   |    |   | 3. PAGE NO. 3411 |                      |    |   |   |   |
| 5. PROGRAM TITLE                                   |              |                                    |                               |    | 6. PROGRAM NO.               |   |   |    |   | 7. REVISION NO.  |                      |    |   |   |   |
| 8. ITEM NO.  | 9. TEST CODE | 10. TYPE AND FUNCTION              | 11. SEACRAFT SOURCE           | CY |                              |   |   | CY |   |                  |                      | CY |   |   |   |
|  |              |                                    |                               | 1  | 2                            | 3 | 4 | 1  | 2 | 3                | 4                    | 1  | 2 | 3 | 4 |
|  |              | 12. NUMBER OF OPERATIONS           |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 13. TOTAL TIME REQUIRED ON STATION |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 14. OPERATING AREA                 | 17. DESCRIPTION OF OPERATIONS |    |                              |   |   |    |   |                  | 18. SUPPORT REQUIRED |    |   |   |   |
|  |              | 15. BEARING (TRUE)                 |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 16. SPEED                          |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 10. TYPE AND FUNCTION              | 11. SEACRAFT SOURCE           | CY |                              |   |   | CY |   |                  |                      | CY |   |   |   |
|  |              |                                    |                               | 1  | 2                            | 3 | 4 | 1  | 2 | 3                | 4                    | 1  | 2 | 3 | 4 |
|  |              | 12. NUMBER OF OPERATIONS           |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 13. TOTAL TIME REQUIRED ON STATION |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 14. OPERATING AREA                 | 17. DESCRIPTION OF OPERATIONS |    |                              |   |   |    |   |                  | 18. SUPPORT REQUIRED |    |   |   |   |
|  |              | 15. BEARING (TRUE)                 |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 16. SPEED                          |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 10. TYPE AND FUNCTION              | 11. SEACRAFT SOURCE           | CY |                              |   |   | CY |   |                  |                      | CY |   |   |   |
|  |              |                                    |                               | 1  | 2                            | 3 | 4 | 1  | 2 | 3                | 4                    | 1  | 2 | 3 | 4 |
|  |              | 12. NUMBER OF OPERATIONS           |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 13. TOTAL TIME REQUIRED ON STATION |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 14. OPERATING AREA                 | 17. DESCRIPTION OF OPERATIONS |    |                              |   |   |    |   |                  | 18. SUPPORT REQUIRED |    |   |   |   |
|  |              | 15. BEARING (TRUE)                 |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |
|  |              | 16. SPEED                          |                               |    |                              |   |   |    |   |                  |                      |    |   |   |   |

UDS FORM R 317 NOV 79 REPLACES FORM R 317 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 3411 - OTHER TECHNICAL SUPPORT - SEACRAFT

**NOTE:** This form is used to list requirements for seacraft. Do not list range ships required for normal telemetry reception, radar measurements, or recovery since the requirement in those cases is for data or a service; those requirements should be entered in the 2000- and 3300-series pages without reference to ships. Seacraft needs for shipborne instrumentation test, set-out tests, User installed equipment, etc., should be listed here.

BOX 1-9 Follow instructions for page 1010.

BOX 10 TYPE AND FUNCTION: Enter the type of ship or boat required and the function it will perform.

BOX 11 SEACRAFT SOURCE: Designate whether ship is furnished by the Requesting Agency (RA) or Support Agency (SA).

BOX 12 NUMBER OF OPERATIONS: Enter under the schedule the number of operations in the space provided.

BOX 13 TOTAL TIME REQUIRED ON STATION: Enter under the schedule, the estimated total time, in hours, the ship or boat will be required for the calendar periods indicated.

BOX 14 OPERATING AREA: Enter the geographical coordinates of the approximate on-station position desired or the area in which the ship's operations are to be conducted.

BOX 15 BEARING: Enter the true bearing of the ship or boat operation.

BOX 16 SPEED: Enter the speed requirements of the ship or boat in knots during the support operations.

BOX 17 DESCRIPTION OF OPERATION: Enter a brief description of a typical operation under this test code.

BOX 18 SUPPORT REQUIRED: Describe the support required. Enter all nonstandard equipment that must be installed; indicate which, if any, the Support Agency will be expected to furnish, install, or maintain.



Date: 7-70

| 1. CLASSIFICATION                               |  | 2. REPLACES PAGE (S)                                   |  | 3. PAGE NO. 3420             |  |
|---|--|--|--|------------------------------|--|
| (PAGE TITLE)                                    |  | DATED  |  | 4. DATE                      |  |
| 5. PROGRAM TITLE                                |  | 6. ITEM NO.  |  | 7. REVISION NO.              |  |
| 8. TEST CODE                                    |  | 9. PROGRAM NO.   |  |                              |  |
| 10. TARGET CODE DESIGNATION, NAME AND REFERENCE |  | 11. TYPE OF TARGET                                     |  | 12. SOURCE                   |  |
| 13. SECURITY CL.                                |  |  |  |                              |  |
| 14. TARGET PERFORMANCE PARAMETERS               |  | 15. AIR CONTROL REQUIREMENTS                           |  |                              |  |
| A. SPEED  |  | A. INTERCEPT: (BRG) N.M. FROM:                         |  |                              |  |
| B. ALTITUDE                                     |  | B. CONTROL LIMITATIONS OR EXPECTED TOLERANCES:         |  |                              |  |
| C. FUEL ON BOARD                                |  | RANGE MAX. MIN. ALT. MAX. MIN. BRG. MAX. MIN.          |  |                              |  |
| D. ENDURANCE                                    |  | C. AIRCRAFT STAGED AT                                  |  |                              |  |
| E. TIME ON STATION                              |  | D. AIR CONTROLLER BRIEFING REQUIRED ( ) YES ( ) NO BY: |  |                              |  |
| F. SIZE   |  | E. PILOTS: USAF: USN: CONTRACTOR: FOREIGN:             |  |                              |  |
| G. REFLECTIVE SURFACE                           |  | F. REQUIRED OR SUGGESTED LOCATION FOR CONTROL          |  |                              |  |
| H. TYPE OF WEAPON                               |  | G.   |  |                              |  |
| I.  |  | H.   |  |                              |  |
| J.  |  | I.   |  |                              |  |
| K.  |  | J.   |  |                              |  |
| 16. NAME OF EQUIPMENT                           |  | 17. RA/SA  |  | 18. DESCRIPTION OF EQUIPMENT |  |
| 19. PURPOSE                                     |  | 20. SUPPORT SERVICES AND SPECIAL REQ.                  |  |                              |  |

ADS FORM R 318  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 3420—OTHER TECHNICAL SUPPORT - TARGETS

- NOTE:** This form is used to list moving target requirements. Do not use this page to list requirements for splash or SOFAR nets.
- BOX 1-9** Follow instructions for Page 1010.
- BOX 10** **TARGET CODE DESIGNATION, NAME, AND REFERENCE:** Indicate the target's code designation and common name. Also, give references which will describe the target.
- BOX 11** **TYPE OF TARGET:** State the type of moving target, indicating its environment (land, sea, air, space).
- BOX 12** **SOURCE:** Indicate whether the target is to be furnished by the Requesting (RA) or Support Agency (SA).
- BOX 13** **SECURITY CLASSIFICATION:** Enter the highest security classification of the target.
- BOX 14** **TARGET PERFORMANCE PARAMETERS:** Indicate the magnitude of the various parameters listed. Space is available for the listing of additional parameters if appropriate.
- BOX 15** **AIR CONTROL REQUIREMENTS:** Complete the outlined description, checking or filling spaces as applicable.
- BOX 16** **NAME OF EQUIPMENT:** List the equipment (both target-borne and nontarget-borne) needs for target requirements. Facility requirements should be listed in the 5600-series pages.

- BOX 17** **RA/SA:** Indicate whether listed equipment will be furnished by the Requesting (RA) or Support Agency (SA).
- BOX 18** **DESCRIPTION OF EQUIPMENT:** Briefly describe important properties of items listed in Box 16.
- BOX 19** **PURPOSE:** Indicate the purpose of the items listed in Box 16.
- BOX 20** **SUPPORT SERVICES AND SPECIAL REQUIREMENTS:** List support services such as Automatic Ground Control Landing (AGCL). Operational or similar systems must be described in the event a user would be authorized to provide his own target operations.

Date: 7-70

|   |               |               |                      |                              |                      |                         |  |                  |                                 |
|---|---------------|---------------|----------------------|------------------------------|----------------------|-------------------------|--|------------------|---------------------------------|
| 1. CLASSIFICATION _____                             |               |               |                      |                              |                      | 2. REPLACES PAGE (S)    |  | 3. PAGE NO. 3430 |                                 |
| (PAGE TITLE)<br>SUMMARY OF FREQUENCY USE/PROTECTION |               |               |                      |                              |                      | 4. DATES                |  | 5. DATE          |                                 |
| 6. PROGRAM TITLE                                    |               |               |                      |                              |                      | 7. PROGRAM NO.          |  | 8. REVISION NO.  |                                 |
| 9. ITEM NO.   | 10. TEST CODE | 11. FREQUENCY | 12. RELATED PRD PAGE | 13. EMISSION CHARACTERISTICS | 14. PURPOSE/LOCATION | 15. PROTECTION REQUIRED | 16. ESTIMATED TIME OF USE<br>A. PRE-OP B. LAUNCH |                  | 17. SPECIAL MONITORING REQUESTS |
|   |               |               |                      |                              |                      |                         |  |                  |                                 |

105 FORM P 319  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 3430—SUMMARY OF FREQUENCY USE/PROTECTION

**NOTE:** This form is used to present a consolidated list of all frequencies which will be used by the Requesting Agency. It will include the frequencies that will be used with the equipments listed on previous pages, plus those listed elsewhere in this PRD. This page serves as a summary of frequency protection required and is not to be considered a request for frequency allocation. Requests for frequency allocation will be submitted according to range directives.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **FREQUENCY:** Enter the frequency in megahertz.

**BOX 11** **RELATED PRD PAGE:** Enter references to related PRD pages that describe the equipments to be used, by page number and item number.

**BOX 12** **EMISSION CHARACTERISTICS:** Enter the type of emission, such as AM, FM, CW, Pulse; bandwidth in kHz and power output (average and/or peak), as applicable.

**BOX 13** **PURPOSE/LOCATION:** Enter the purpose for which the frequency is required (e.g., point-to-point voice, air/ground telemetry, etc.). Enter the location of the referenced equipment.

**BOX 14** **PROTECTION REQUIRED:** Enter the desired guard band such as 500 kHz, etc. If no protection is required, enter the word "None".

**BOX 15** **ESTIMATED TIME OF USE:** Enter the estimated range time in hours per test that the frequency will be used:

**Box A. PRE-OP:** Open loop tests performed at times other than during the launch operation.

**Box B. LAUNCH:** Include the time the radiation begins normally during countdown to splash, stage separation, injection, etc., whichever is applicable.

**BOX 16** **SPECIAL MONITORING REQUESTS:** Enter other related PRD pages which explain special monitoring requirements in detail.

Date: 7-70

| 1. CLASSIFICATION                               |              |                                       |                     |             |           |                               |                    |                     |             |                     |               |               |          |              |              |
|---|--------------|---------------------------------------|---------------------|-------------|-----------|-------------------------------|--------------------|---------------------|-------------|---------------------|---------------|---------------|----------|--------------|--------------|
| (PAGE TITLE)<br>GEODETIC AND GRAVITATIONAL DATA |              |                                       |                     |             |           | 2. REPLACES PAGE (S)<br>DATED |                    | 3. PAGE NO.<br>3440 |             |                     |               |               |          |              |              |
| 5. PROGRAM TITLE                                |              |                                       |                     |             |           | 6. PROGRAM NO.                |                    | 7. REVISION NO.     |             |                     |               |               |          |              |              |
| 8. ITEM NO.                                     | 9. TEST CODE | 10. FACILITY DESCRIPTION AND LOCATION | 11. HORIZONTAL DATA |             |           |                               | 12. ASTROMMIN DATA |                     |             | 13. GYRO-HORIZ DATA |               | 14. VERT DATA |          | 15. UNITS    |              |
|   |              |                                       | A. GEO LAT          | B. GEO LONG | C. GEO HT | D. REF DATUM                  | A. ASTRO LAT       | B. ASTRO LONG       | C. ASTRO AZ | D. MERID            | E. PRIME VERT | F. GYRO DATUM | A. ELEV  | B. REF DATUM | C. ABS. GRAV |
|   |              |                                       | (SEC)               | (SEC)       | (METERS)  |                               | (SEC)              | (SEC)               | (SEC)       | (SEC)               | (SEC)         |               | (METERS) |              | (METERS)     |
| 16. REMARKS AND SPECIAL REQUIREMENTS            |              |                                       |                     |             |           |                               |                    |                     |             |                     |               |               |          |              |              |

UFG FORM 320  
JUL 70

1. CLASSIFICATION

Preparation Instructions- PAGE 3440-GEODETIC AND GRAVITATIONAL DATA

**NOTE:** This form is used to identify geodetic and/or gravitational data required for the program or to identify parameter accuracy requirements which exceed current accuracy levels. The geodetic and gravitational parameters for specific launch sites, sensors, and targeted impact points are available to any qualified user. The Support Agency Geodetic Project Officer, or the responsible geodetic agency, will distribute the requisite published geodetic data to the User for each facility or group of facilities identified for use in support of the program in the Statement of Capability. The User will then analyze the geodetic data to determine its adequacy in connection with program objectives.

In general, the presently available parameter accuracies represent the current state-of-the-art. If the User identifies accuracy requirements significantly beyond the state-of-the-art (available data), the basis of these requirements must be documented. Such documentation, if required, will be requested of the User by the Support Agency after reviewing the PRD.

If this page is not filled in by the User, it will signify that the launch site, sensor, and targeted impact point data, as specified by the Support Agency, are adequate to meet program requirements.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **FACILITY DESCRIPTION AND LOCATION:** Identify each facility (launcher, sensor, impact point, or support facility) and its location, if known.

**BOX 11-15**

**REQUIRED DATA ACCURACIES:** List the maximum allowable standard deviation uncertainties (accuracy = 1  $\sigma$ ) for the following items for which geodetic and gravitational data requirements have been identified:

- |                       |                        |
|-----------------------|------------------------|
| (1) Launch Facilities | (3) Target Points      |
| (2) Sensors           | (4) Support Facilities |

All columns should be filled in. If the parameter is not required, enter NR. If the parameter is required but there is no accuracy statement necessary, enter an X.

**BOX 16**

**REMARKS AND SPECIAL REQUIREMENTS:** Enter any remarks as necessary. List any special geodetic and/or gravitational requirements not provided for above. Enter special instructions such as data reference points on particular instrumentation, special data card issuance or address, special accuracy statement clarification, or any special requirements related to the data.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |              |            |                    |  |  |                     |  |
|---|--------------|--------------|------------|--------------------|--|--|---------------------|--|
| (PAGE TITLE)<br><b>OTHER TECHNICAL SUPPORT - TRAINING</b> |              |              |            |                    | 2. REPLACES PAGE (S)                     |  | 3. PAGE NO. 3450    |  |
|   |              |              |            |                    | DATED                                    |  | 4. DATE             |  |
| 5. PROGRAM TITLE  |              |              |            |                    | 6. PROGRAM NO.                           |  | 7. REVISION NO.     |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. LOCATION | 11. NUMBER | 12. TYPE/SPECIALTY | 13. DATE/DURATION<br>A. ARRIVE B. DEPART |  | 14. PURPOSE/REMARKS |  |
|   |              |              |            |                    |  |  |                     |  |

DD FORM 521  
JUL 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 3450—OTHER TECHNICAL SUPPORT - TRAINING**

**NOTE:** This form is used to describe special training or briefing requirements for Requesting Agency personnel in support of program, mission or test operations.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **LOCATION:** Enter the location where the training is to be accomplished.

**BOX 11** **NUMBER:** Enter the number of personnel to be trained at the location stated in Box 10.

**BOX 12** **TYPE/SPECIALTY:** Enter the type of training required. Give training course numbers or specialty codes, if known.

**BOX 13** **DATE/DURATION:** Define the period of time that the personnel will be available for the training courses requested.

**BOX 14** **PURPOSE/REMARKS:** Describe the training required and state any equipment or training aids that may be required. If housing, messing, and other base support services are required for the personnel specified in Box 11, appropriate information must be entered in the Personnel Assignment Schedules, Pages 5106 through 5120.

Date: 7-70

|                                     |               |                      |  |                  |  |
|-------------------------------------|---------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____             |               | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3500 |  |
| (PAGE TITLE)<br>MEDICAL - GENERAL * |               | 4. DATE              |  | 5. DATE          |  |
| 6. PROGRAM TITLE                    |               | 7. PROGRAM NO.       |  | 8. REVISION NO.  |  |
| 9. ITEM NO.                         | 10. TEST CODE | 11. DESCRIPTION *    |  |                  |  |
|                                     |               |                      |  |                  |  |

U.S. FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3500—MEDICAL - GENERAL

NOTE: This form is used to provide general medical requirements.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Enter a description of the general medical requirements to be supported for the various phases of the program/mission.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |              |  |             |   |  |                         |  |
|--|--------------|--|-------------|---|--|-------------------------|--|
| (PAGE TITLE)<br><b>MEDICAL - BIO-SCIENCE</b> |              |  |             | 1. REPLACES PAGE (S)                          |  | 3. PAGE NO. <b>3505</b> |  |
| 2. PROGRAM TITLE                             |              |  |             | DATED   |  | 4. DATE                 |  |
|  |              |  |             | 5. PROGRAM NO.                                |  | 7. REVISION NO.         |  |
| 8. ITEM NO.                                  | 9. TEST CODE | 10. SUPPORT SERVICES OR SPECIAL REQUIREMENTS | 11. PURPOSE | 12. SPECIALIZED PERSONNEL OR EQUIPMENT NEEDED |  |                         |  |
|  |              |  |             |   |  |                         |  |

UOS FORM R 322  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 3505--MEDICAL-BIO-SCIENCE

NOTE: This form is used to state special requirements for biological packages.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 **SUPPORT SERVICES OR SPECIAL REQUIREMENTS:** List those support services and special requirements which may fall under the category of bio-science regardless if already mentioned elsewhere in the document, i.e., cages for primates, special instructions for their care, feeding, etc.

BOX 11 **PURPOSE:** Briefly describe the purpose of the items in Box 10, relating them to the overall program.

BOX 12 **SPECIALIZED PERSONNEL OR EQUIPMENT NEEDED:** Describe any special equipment or specialized personnel required.

Date: 7-70

|  |               |              |                 |                       |                      |                                  |                  |             |
|--|---------------|--------------|-----------------|-----------------------|----------------------|----------------------------------|------------------|-------------|
| 1. CLASSIFICATION                            |               |              |                 |                       | 2. REPLACES PAGE (S) |                                  | 3. PAGE NO. 3510 |             |
| (PAGE TITLE)<br>MEDICAL - PERSONNEL - ACTIVE |               |              |                 |                       | 4. DATE              |                                  | 5. DATE          |             |
| 6. PROGRAM TITLE                             |               |              |                 |                       | 7. PROGRAM NO.       |                                  | 8. REVISION NO.  |             |
| 9. ITEM NO.                                  | 10. TEST CODE | 11. LOCATION | 12. NUMBER/TYPE | 13. TRAINING REQUIRED | 14. RESPON. AGENCY   | 15. DATE<br>A. ARRIVAL B. DEPART |                  | 16. REMARKS |
|  |               |              |                 |                       |                      |                                  |                  |             |

DD FORM R 323  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 3510—MEDICAL - PERSONNEL - ACTIVE

NOTE: This form is used to identify the number and type of medical personnel required at various locations to support the program/mission.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 LOCATION: Enter the areas or locations that are to be staffed with medical personnel, i.e., Patrick AFB Hospital, KSC, or offshore boats, such as LARCS.

BOX 11 NUMBER/TYPE: Enter the number and type of personnel to be assigned to each location specified in Box 10, e.g., 4—surgeons.

BOX 12 TRAINING REQUIRED: Enter in this box the personnel training and/or briefing required prior to assignment.

BOX 13 RESPON AGENCY: List the agency responsible for conducting the training sessions.

BOX 14 DATE: Enter the arrival and departure dates of medical personnel at the locations listed in Box 10.

BOX 15 REMARKS: Enter additional information or special requirements.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |              |              |                      |                                  |  |                  |  |
|--|--------------|--------------|----------------------|----------------------------------|--|------------------|--|
| (PAGE TITLE)<br><b>MEDICAL - PERSONNEL - STANDBY</b> |              |              |                      | 3. REPLACES PAGE (S)             |  | 3. PAGE NO. 3520 |  |
|  |              |              |                      | 4. DATE                          |  |                  |  |
| 5. PROGRAM TITLE                                     |              |              |                      | 6. PROGRAM NO.                   |  | 7. REVISION NO.  |  |
| 8. ITEM NO.  | 9. TEST CODE | 10. LOCATION | 11. NUMBER/SPECIALTY | 12. REMARKS/SPECIAL REQUIREMENTS |  |                  |  |
|  |              |              |                      |                                  |  |                  |  |

UDS FORM R 324  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 3520—MEDICAL - PERSONNEL - STANDBY**

**NOTE:** This form is used to identify the medical personnel who will be required to support the program/mission during emergencies or on a standby basis as consultants.

**BOX 12 REMARKS/SPECIAL REQUIREMENTS:** Enter additional information or special requirements.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10 LOCATION:** Enter the areas or locations where standby medical personnel will be assigned.

**BOX 11 NUMBER/SPECIALTY:** Enter the number and specialty field of the medical personnel required at each location listed in Box 10.



Date: 7-70

|  |              |                      |  |                  |  |
|--|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____                        |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3530 |  |
| (PAGE TITLE)<br>MEDICAL - FACILITY/EQUIPMENT * |              | 4. DATE              |  |                  |  |
| 5. PROGRAM TITLE                               |              | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.                                    | 9. TEST CODE | 10. DESCRIPTION *    |  |                  |  |
|  |              |                      |  |                  |  |

U.S. FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 3530—MEDICAL - FACILITY/EQUIPMENT

**NOTE:** This form is used to describe the medical equipment and facilities, land or sea based, that will be required to support the program/mission.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DESCRIPTION:** Include a description of the land-based and sea-based medical facilities required. Also describe special equipment and transportation requirements for the astronauts, medical teams, or medical equipment, e.g., special surgical kits, instruments, helicopter from launch area to hospital, ambulances, etc. Briefly describe the medical team communications requirements, e.g., MCC surgeon requires two way teletype communication with each ship in the recovery areas. The detailed communications requirements, i.e., type of transmission, format, source, destinations, etc., should be defined in the ground communications section and referenced to the appropriate item numbers.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                              |                     |
|---|--------------|------------------------------|---------------------|
| (PAGE TITLE)<br>PUBLIC AFFAIRS SERVICES - GENERAL |              | 2. REPLACES PAGE (S)<br>DATE | 3. PAGE NO.<br>3600 |
| 5. PROGRAM TITLE                                  |              | 6. PROGRAM NO.               | 7. REVISION NO.     |
| 8. ITEM NO.                                       | 9. TEST CODE | 10. DESCRIPTION              |                     |
|   |              |                              |                     |

LOS FORM 9 G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.]

Preparation Instructions: PAGE 3600—PUBLIC AFFAIRS SERVICES - GENERAL

NOTE: This form is used to describe procedures for receiving and disseminating general program/mission information to news media representatives and to other Support Agencies.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DESCRIPTION: Enter general information concerning Public Affairs Services. Include such areas as oral communications, radio and television, motion picture, news media, special releases, etc., connected with public affairs.

Enter the overall schedule of public affairs events that will be covered. Specific requirements must be entered on applicable forms to receive support such as communications, facilities, photography, etc., and may be referenced herein.

Date: 7-70

|   |              |              |            |                  |                      |  |                  |  |
|---|--------------|--------------|------------|------------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____   |              |              |            |                  | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 3610 |  |
| (PAGE TITLE)<br>PUBLIC AFFAIRS SERVICES - PERSONNEL ASSIGNMENTS |              |              |            |                  | DATED                |  | 4. DATE          |  |
| 5. PROGRAM TITLE  |              |              |            |                  | 6. PROGRAM NO.       |  | 7. REVISION NO.  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. LOCATION | 11. NUMBER | 12. ORGANIZATION | 13. PURPOSE/REMARKS  |  |                  |  |
|   |              |              |            |                  |                      |  |                  |  |

UDS FORM R 325  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 3610—PUBLIC AFFAIRS SERVICES - PERSONNEL ASSIGNMENTS**

**NOTE:** This form is used to list the locations and numbers of personnel required for coverage of Public Affairs events. Services and other requirements for support of Public Affairs personnel will be entered in the appropriate requirements sections of the document.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **LOCATION:** Enter the location where the duties will be performed.

**BOX 11** **NUMBER:** Enter the number of persons who will be performing the duties.

**BOX 12** **ORGANIZATION:** Enter the name of the organization providing the personnel.

**BOX 13** **PURPOSE/REMARKS:** Enter the purpose for the Public Affairs events and any remarks that will further clarify entries on this page.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>PUBLIC AFFAIRS SERVICES - NEWS MEDIA PERSONNEL POSITIONS</b> |              |              |            |                                |                      | 2. REPLACES PAGE (S)<br>DATED _____ |          | 3. PAGE NO. 3620 |  |
|---|--------------|--------------|------------|--------------------------------|----------------------|-------------------------------------|----------|------------------|--|
| 3. PROGRAM TITLE  |              |              |            |                                |                      | 5. PROGRAM NO.                      |          | 7. REVISION NO.  |  |
| 6. ITEM NO.   | 9. TEST CODE | 10. LOCATION | 11. NUMBER | 12. DUTIES OR RESPONSIBILITIES | 13. TYPE OF COVERAGE | 14. ESCORT                          | 15. TIME |                  |  |
|   |              |              |            |                                |                      |                                     | A. ARR.  | B. DEP.          |  |
|   |              |              |            |                                |                      |                                     |          |                  |  |
|   |              |              |            |                                |                      |                                     |          |                  |  |
|   |              |              |            |                                |                      |                                     |          |                  |  |
|   |              |              |            |                                |                      |                                     |          |                  |  |
| 16. REMARKS   |              |              |            |                                |                      |                                     |          |                  |  |

UDS FORM R 326  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 3620—PUBLIC AFFAIRS SERVICES - NEWS MEDIA PERSONNEL POSITIONS**

**NOTE:** This form is used to list the personnel assigned for news media coverage at various locations. It also establishes the requirement for news media personnel escorts at these locations. Services and other requirements for support of Public Affairs personnel will be entered in the appropriate requirements section of the document.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **LOCATION:** Enter the location where the news media coverage will occur.

**BOX 11** **NUMBER:** Enter the number of news media personnel required at this location.

**BOX 12** **DUTIES OR RESPONSIBILITIES:** Enter the duties or the responsibilities of the personnel listed in Box 11 such as voice commentator, cameraman, soundman, etc.

**BOX 13** **TYPE OF COVERAGE:** Enter the type of coverage to be given, i.e., TV, radio, photo, etc.

**BOX 14** **ESCORT:** Enter a statement as to whether or not an escort is required.

**BOX 15** **TIME:** Enter the arrival and departure time of the news media personnel.

**BOX 16** **REMARKS:** Enter any remarks that may be appropriate.

Date: 11-79

|   |              |                      |  |                  |  |
|---|--------------|----------------------|--|------------------|--|
| 1. CLASSIFICATION _____   |              | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 4100 |  |
| (PAGE TITLE)<br>DATA COMPUTER PROCESSING SPECIFICATIONS - GENERAL * |              |                      |  | 4. DATE          |  |
| 5. PROGRAM TITLE  |              |                      |  | 6. PROGRAM NO.   |  |
| 7. REVISION NO.   |              |                      |  |                  |  |
| 8. ITEM NO.   | 9. TEST CODE | 10. DISCUSSION *     |  |                  |  |
|   |              |                      |  |                  |  |

UDS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 4100— DATA COMPUTER PROCESSING SPECIFICATIONS - GENERAL

NOTE: This form is used to list the general data processing requirements not covered by Pages 4110 or 4160. Disposition of the data will be listed in the data disposition section of this document.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DISCUSSION: Enter the requirements for data processing.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>DATA COMPUTER PROCESSING SPECIFICATIONS - DETAIL |                 |                         |               |                        |    |                       |                                |                  |      | 2. REPLACES PAGE(S)<br>DATED |   | 3. PAGE NO. 4110<br>4. DATE |  |
|--|-----------------|-------------------------|---------------|------------------------|----|-----------------------|--------------------------------|------------------|------|------------------------------|---|-----------------------------|--|
| 5. PROGRAM TITLE   |                 |                         |               |                        |    |                       |                                |                  |      | 6. PROGRAM NO.               |   | 7. REVISION NO.             |  |
| 8.<br>ITEM NO.   | 9.<br>TEST CODE | 10.<br>DATA DESCRIPTION | 11.<br>SEC CL | 12.<br>PROCESSING TIME |    | 13.<br>DATA SAMP RATE | 14.<br>DATA PLOT OR PRINT RATE | 15.<br>REFERENCE |      | 16.<br>TYPE PRESENT.         | 17.<br>DATA FORMAT-GENERAL INSTRUCTIONS |                             |  |
|  |                 |                         |               | FROM                   | TO |                       |                                | PAGE NO.         | ITEM |                              |   |                             |  |
|  |                 |                         |               |                        |    |                       |                                |                  |      |                              |   |                             |  |

UDS FORM R 400 NOV 79 REPLACES FORM R 400 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 4110 - DATA COMPUTER PROCESSING SPECIFICATIONS - DETAIL

**NOTE:** This form is used to list the general data processing requirements. The disposition of these data will be listed in the data disposition section of this document.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DATA DESCRIPTION: Enter the type of the data to be processed.

BOX 11 SEC CL: Enter the security classification of the data.

BOX 12 PROCESSING TIME: Enter the time (Zulu or flight time) to begin and stop processing.

BOX 13 DATA SAMP RATE: Enter the rate at which the data will be sampled and stored on magnetic tape.

BOX 14 DATA PLOT OR PRINT DATE: Enter the rate at which the data will be taken from the sampled data, plotter, or printer.

BOX 15 REFERENCE: In the appropriate column, enter the page number where the item is listed and the agency designator with the number portion of the referenced item.

BOX 16 TYPE PRESENT.: Enter the type of presentation of the data (magnetic tape, film plot, hard-copy plot, printout, etc.).

BOX 17 DATA FORMAT-GENERAL INSTRUCTIONS: Enter all special data formats for general instructions which are needed to further define the specifications of the processed data.

Date: 11-79

1. CLASSIFICATION

|                                 |              |          |                            |  |                              |               |   |  |
|---------------------------------|--------------|----------|----------------------------|--|------------------------------|---------------|---|--|
| (PAGE TITLE)<br>DATA PROCESSING |              |          |                            |  | 2. REPLACES PAGE(S)<br>DATED |               | 3. PAGE NO. 4160                          |  |
| 5. PROGRAM TITLE                |              |          |                            |  | 6. PROGRAM NO.               |               | 7. REVISION NO.                           |  |
| 8. ITEM NO.                     | 9. TEST CODE | 10. DATA | 11. REFERENCE<br>PAGE ITEM |  | 12. TIME INT                 | 13. TIME REQD | 14. DESIRED DATA PRESENTATION AND REMARKS |  |
|                                 |              |          |                            |  |                              |               |   |  |

UDS FORM R 401  
NOV 79

REPLACES FORM R 401 DATED JUL 70.

1. CLASSIFICATION

Preparation Instructions: PAGE 4160 - DATA PROCESSING

**NOTE:** This form is to be used to describe derivative or special handling of measurement data not readily or adequately defined on requirement pages 2000 through 3999 such as computer programs, graphical presentations, preferred methods of processing data, special formulas or desired calculations, etc.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DATA: Enter the data for which the special processing is required.

BOX 11 REFERENCE: Enter the page/paragraph and item number (from page/paragraph series 2000-3999) where the data collection requirement appears.

BOX 12 TIME INT: Enter the time interval between consecutive prints on which data are required.

BOX 13 TIME REQD: Indicate the number of hours (H) or work days (WD) after the test (T-0) that the data are required.

BOX 14 DESIRED DATA PRESENTATION AND REMARKS: Describe the special data processing/presentation required such as special formats in tabular data, graphical data, magnetic tapes, etc. For other than standard presentations, a complete description should be furnished. (Deviations from normal presentations will require lead time for computer programming and cause longer elapsed time due to special handling.)

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |              |                                   |                  |
|---|--------------|-----------------------------------|------------------|
| (PAGE TITLE)<br><b>DATA DISPOSITION - GENERAL *</b> |              | 2. REPLACES PAGE (S)<br><br>BATES | 3. PAGE NO. 4200 |
| 5. PROGRAM TITLE                                    |              | 6. PROGRAM NO.                    | 7. REVISION NO.  |
| 8. ITEM NO.   | 9. TEST CODE | 10. DESCRIPTION *                 |                  |
|   |              |                                   |                  |

UDS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.]

Preparation Instructions: PAGE 4200 - DATA DISPOSITION - GENERAL

**NOTE:** This form is used to list the general requirements for disposition of flight evaluation data which have been established elsewhere in this document.

BOX 1-9 Follow Instructions for page 1010.

BOX 10 DESCRIPTION: Enter a description of flight evaluation data disposition requirements.



Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|                              |  |                                      |  |                              |              |                     |  |
|------------------------------|--|--------------------------------------|--|------------------------------|--------------|---------------------|--|
| (PAGE TITLE)<br>DATA REPORTS |  |                                      |  | 2. REPLACES PAGE(S)<br>DATED |              | 3. PAGE NO. 4205    |  |
| 5. PROGRAM TITLE             |  |                                      |  | 8. ITEM NO.                  | 9. TEST CODE | 6. PROGRAM NO.      |  |
|                              |  |                                      |  |                              |              | 7. REVISION NO.     |  |
| 10. TYPE REPORT              |  |                                      |  | 11. TIME REQUIRED            |              | 12. QUANTITY        |  |
| 13. DATA TYPE                |  | 14. REFERENCE<br>A. PAGE B. ITEM NO. |  | 15. RECIPIENT                |              | 16. REQUIRED FORMAT |  |
|                              |  |                                      |  |                              |              |                     |  |

UDS FORM R 403 NOV 79 REPLACES FORM R 403 DATED JUL 78

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 4205 - DATA REPORTS

**NOTE:** This form is used for specifying requirements for the reproduction and distribution of test data reports resulting from requirements stated on pages 2000 through 4199. These reports include, but are not limited to, tape recordings, photographic records, survey data, meteorological reports, telemetry records, trajectory data, etc.

BOX 1-9 Follow instructions on page 1010.

BOX 10 TYPE REPORT: Enter the type of report required such as quick-look, preliminary, or final. Quick-look or preliminary is to be presented prior to the final data in either tabular or graphical form. Only that data which at a later time will be incorporated should be included in this category. Final report data constitute the end product required by the range User or other agencies. These data are to be processed, reduced, etc., in a manner prescribed in previous pages of the UDS.

BOX 11 TIME REQUIRED: Enter the time in minutes, hours, or days after the test that the data are required.

BOX 12 QUANTITY: Enter the number of reports required.

BOX 13 DATA TYPE: Enter the type data such as metric, telemetry, etc.

BOX 14 REFERENCES: Enter the page number and item number where the acquisition requirements are listed elsewhere in this document. All data items required must have a reference.

BOX 15 RECIPIENT: Enter the name and/or code of the person(s) and/or organization(s) which originated the request, followed by the agency code.

BOX 16 REQUIRED FORMAT: Enter any special requirements for the organization or presentation of the report.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

UDS FORM R 404  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 4210 - DATA DISPOSITION - DETAIL

**NOTE:** This form is used to list the disposition of data other than real time, the requirements for which have been established elsewhere in this document. This section may be divided into specific subsections, as required, for particular programs. These subsections may be broken down by mission phase, e.g., prelaunch, launch, midcourse, orbital and space, terminal, and signature. Data breakout may be categorized by type, e.g., command, telemetry, photographic, etc. The organization of this section must be consistent with the data breakout where the requirement was established in this document. In all cases the system used and breakout of categories must be explained on page 4200. Data Disposition - General.

BOX 1-9 Follow instructions for page 1010.

BOX 10 DATA TYPE: Enter the type of data to be handled using standard data nomenclature when applicable. Reference Document 501-70, Volume 1, Supplement 1, Uniform Test Data and Data Product Nomenclature.

BOX 11      REFERENCE: Enter the page number and item  
number where the data acquisition require-  
ments are listed elsewhere in this document.  
All data items required must have a reference.

BOX 12      DISTRIBUTION: Enter the organization and code of the office assigned as the central distribution point for the data. This office should be contacted if problems arise in data distribution.

BOX 13 QUANTITY: Enter in Box A the number of original data records required. If more than one original is needed, explain the need in the

Remarks box (Box 16). Enter in Box 8 the number of copies or prints needed.

**BOX 14**    **RECIPIENT:** Enter the name and/or code of the person(s) and/or organization(s) which originated the request, followed by the agency code in parentheses. This agency or person will receive the data from the distributor listed in Box 12.

**BOX 15** **TIME REQD:** Enter the time in hours, up to 24 hours, and in days as indicated below. This is the time required for receipt of the data by the recipient.

"H" meaning consecutive hours from T-0.

"WD" meaning consecutive hours from T-0; Saturday, Sunday and holidays are not included in this time period (5 days/week).

\* "CD" meaning calendar days from T-0; Saturday, Sunday and holidays are included in this processing time.

"W/A" meaning when the data is available.

"EOM+" (enter number of days) meaning the number of days from mission termination (end of mission) when the data are required.

"SD+ " (enter number of days) meaning the number of days after the ship on which the data were generated has returned to port.

"AOV" meaning after arrival of vehicle.

"EOS+     " (enter number of days) meaning the number of days after the end of support.

"E+     " (enter number of days) meaning number of days after the event.

"R+     " (enter number of days) meaning the number of days after receipt of the material.

BOX 16 REMARKS: Enter any remarks that will further clarify any entries or designations that appear on this page.

## 1. CLASSIFICATION

UDS FORM R G/A  
JULY 72

## 1. CLASSIFICATION

Preparation Instructions: PAGE 5100-PERSONNEL ASSIGNMENT SCHEDULES - GENERAL

BOX 10 DISCUSSION: Specify the number and type of personnel, the location and the duration of the assignments. Pages 5110 and 5120 will specify detailed scheduling.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|  |                                |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|--|--------------------------------|--|---|---|------------------------------------|----------|-----------------------|---|---|----------|---|---|---|----------|---|---|---|---|---|---|---|---|---|
| (PAGE TITLE)<br><b>PERSONNEL ASSIGNMENT SCHEDULES - DETAIL</b> |                                |  |   |   | 2. REPLACES PAGE(S)<br>DATED _____ |          | 3. PAGE NO. 5110      |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
| 5. PROGRAM TITLE _____   |                                |  |   |   | 8. ITEM NO. 9. TEST CODE _____     |          | 6. PROGRAM NO. _____  |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  |                                |  |   |   |                                    |          | 7. REVISION NO. _____ |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
| 10. LOCATION   | 11. PERSONNEL CATEGORY         | 12. NUMBER OF PERSONNEL ASSIGNED/MONTH-QUARTER |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  |                                | CY _____                                       |   |   |                                    | CY _____ |                       |   |   | CY _____ |   |   |   | CY _____ |   |   |   |   |   |   |   |   |   |
|  |                                | J  | F | M | A                                  | M        | J                     | J | A | S        | O | N | D | 1        | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 |
|  | A. CONTRACTOR (INCL SUBCONTR.) |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | ADMINISTRATIVE                 |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | ENGINEERING                    |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | TECHNICIAN                     |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | B. CIVIL SERVICE               |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | ADMINISTRATIVE                 |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | ENGINEERING                    |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | TECHNICIAN                     |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | C. MILITARY                    |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | OFFICERS                       |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | ENLISTED                       |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | D. TRANSIENTS                  |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | CONTRACTOR                     |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | CIVIL SERVICE                  |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | MILITARY                       |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
|  | E. TOTAL                       |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |
| 13. REMARKS  |                                |  |   |   |                                    |          |                       |   |   |          |   |   |   |          |   |   |   |   |   |   |   |   |   |

UDS FORM R 500 REPLACES FORM R 500 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 5110 - PERSONNEL ASSIGNMENT SCHEDULES - DETAIL

**NOTE:** This form is used to show categorized Requesting Agency personnel deployment in connection with the program. This information is required to allow planning for housing, messing, medical care, recreation and other general or base support services for personnel assigned to or meeting at the various locations.

BOX 1-9 Follow instructions for page 1010.

BOX 10 LOCATION: Enter the location within the agency (or other locations) where personnel will be assigned or will visit. See instructions in Box 12 concerning workers living in one area and commuting to another for work.

BOX 11 PERSONNEL CATEGORY: The various categories of personnel that may be assigned in connection with the test program are listed within this box. If other categories are applicable, appropriate substitutions or additions can be made.

BOX 12 NUMBER OF PERSONNEL ASSIGNED/MONTH-QUARTER: Enter in the appropriate boxes, by months for the first year and by quarters for subsequent years, the number of personnel assigned to the location shown in Box 10. In cases where personnel live at one location and commute daily to another for duty, enter an asterisk or other designator in the affected box in the "TOTAL" line; also enter clarifying notes in the Remarks box (Box 13) showing the work locations and number of personnel commuting thereto from the locations shown in Box 10.

BOX 13 REMARKS: Space is provided for additional information which may affect planning such as requirements relating to special personnel accommodations, commuters and dependents, etc. Enter number of school age dependents in kindergarten, grade school and high school.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

UDS FORM R 501      REPLACES FORM R 501 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 5120 - PERSONNEL ASSIGNMENT SCHEDULES - HOUSING

NOTE: This form is used to show the quarters required for Requesting Agency personnel deployed in connection with the program. This information is required to allow planning for housing and other general or base support services for personnel assigned to or meeting at the various locations.

80X 1-9 Follow instructions for page 1010.

BOX 10 LOCATION: Enter the location within the range (or other locations) where personnel will be assigned or will visit. See instructions in Box 12 concerning workers living in one area and commuting to another for work.

**BOX 11 TYPE OF QUARTERS:** The categories of quarters (houses, trailers, bachelor quarters bed spaces, or barrack bed spaces) that may be required in connection with the test program are listed within this box. If other categories are applicable, appropriate substitution or additions may be made.

BOX 12 NUMBER OF QUARTERS REQUIRED/MONTH-QUARTER: Enter in the appropriate boxes, by months for the first year and by quarters for subsequent years, the number of quarters required at the location shown in Box 10. In cases where personnel live at one location and commute daily to another for duty, enter an asterisk or other designator in the affected box; also provide clarifying notes at the bottom of the page indicating the work locations and number of personnel commuting thereto.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|  |              |                               |                     |
|--|--------------|-------------------------------|---------------------|
| (PAGE TITLE)<br>TRANSPORTATION - GENERAL * |              | 3. REPLACES PAGE (S)<br>DATED | 3. PAGE NO.<br>5200 |
| 5. PROGRAM TITLE                           |              | 6. PROGRAM NO.                | 7. REVISION NO.     |
| 8. ITEM NO.                                | 9. TEST CODE | 10. DISCUSSION *              |                     |
|  |              |                               |                     |

U.S. FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 5200—TRANSPORTATION - GENERAL

**NOTE:** This form is used by the Requesting Agency to specify general transportation requirements. Specific requirements and schedules are contained in Pages 5210 and 5220.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10**      **DISCUSSION:** Define the general transportation requirements.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>SURFACE LOGISTICS SCHEDULE</b> |                 |                       |              |    |             | 2. REPLACES PAGE(S)<br>DATED _____ |          | 3. PAGE NO. 5210                                       |   |   |   |    |   |   |   |    |   |   |   |   |
|---|-----------------|-----------------------|--------------|----|-------------|------------------------------------|----------|--|---|---|---|----|---|---|---|----|---|---|---|---|
| 5. PROGRAM TITLE                                  |                 |                       |              |    |             | 6. PROGRAM NO.                     |          | 7. REVISION NO.  |   |   |   |    |   |   |   |    |   |   |   |   |
| 8.<br>ITEM NO.                                    | 9.<br>TEST CODE | 10.<br>TRIP FREQ /QTR | 11. LOCATION |    | 12. LOAD    |                                    |          | 14. NUMBER OF PASSENGERS AND QUANTITY OF CARGO/QUARTER |   |   |   |    |   |   |   |    |   |   |   |   |
|   |                 |                       | FROM         | TO | PER-SON-NEE | X 10 <sup>4</sup>                  | SEE NOTE | CY   |   |   |   | CY |   |   |   | CY |   |   |   |   |
|   |                 |                       |              |    |             |                                    |          |  | 1 | 2 | 3 | 4  | 1 | 2 | 3 | 4  | 1 | 2 | 3 | 4 |
|   |                 |                       |              |    |             |                                    |          |  |   |   |   |    |   |   |   |    |   |   |   |   |

UDS FORM R 502 NOV 79 REPLACES FORM R 502 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 5210 - SURFACE LOGISTICS SCHEDULE

**NOTE:** This form is used to list all Requesting Agency surface transportation requirements for personnel and cargo between (or to) the various stations or sites. Should the Requesting Agency desire to provide part or all of its own transportation, this should be shown and noted as User provided; in which case, any materials handling or other requirements to be placed on the Support Agency shall be specified. These requirements should cover the period of the program and reflect only those requirements in direct support of the program. Personnel and cargo load will be entered as separate items even if the location entry is identical.

BOX 1-9 Follow instructions for page 1010.

BOX 10 TRIP FREQ/QTR: Enter the number of trips anticipated per quarter.

BOX 11 LOCATION: Enter the name or number of the station, base, center, etc., in the appropriate column, where the personnel and/or cargo will be transported from and to.

BOX 12 LOAD: If the load is personnel, enter an "X" in the personnel column. If the load is cargo, enter "S/T" (short tons) for cargo on land or "M/T" (measurement tons) for ship cargo in the heading to complete the notation on "LBS X 10<sup>4</sup>." Select and enter an exponent in the column such that the number entered in the columns in Box 14 does not exceed four digits.

BOX 13 SEE NOTE: If additional space is required to clarify any line item, enter the letter(s) A-ZZZ on the applicable line and enter the same letter(s) in the note column on a blank or lined spare form. After typing in the same title as this page and a page number one decimal number larger (5200.2, etc.), enter the necessary clarifying information.

BOX 14 NUMBER OF PASSENGERS AND QUANTITY OF CARGO/QUARTER: After entering the last two digits of the applicable calendar year (CY), enter the number of passengers and quantity of cargo to be transported per quarter. If the number or quantity is dependent on the test schedule, enter the value per test and type the notation "per test" after the value entered.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

UDS FORM R 502      REPLACES FORM R 502 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

[\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

## Preparation Instructions: PAGE 5220 - AIR LOGISTICS SCHEDULE

**NOTE:** This form is used to list all Requesting Agency air transportation requirements of personnel and cargo between (or to) the various stations or sites. Should the Requesting Agency desire to provide part or all of its own transportation, this should be shown and noted as User provided; in which case, any materials handling or other requirements to be placed on the Support Agency shall be specified. These requirements should cover the period of the program and reflect only those requirements for direct support of the program. Personnel and cargo load will be entered as separate line items even if the location entry is identical.

**BOX 12** **LOAD:** If the load is personnel, enter an "X" in the personnel column. If the load is cargo, enter the exponential value in the column marked "LBS X 10<sup>3</sup>." Select an exponent such that the number entered in the column in Box 14 does not exceed four digits.

BOX 13 SEE NOTE: If additional space is required to clarify any line item, enter the letter(s) A-ZZZ on the applicable line and enter the same letter(s) in the note column on a blank or lined spare form. After typing in the same title as this page and a page number one decimal number larger (5210.2, etc.), enter the necessary clarifying information.

BOX 14      NUMBER OF PASSENGERS AND QUANTITY OF CARGO/QUARTER:  
After typing in the last two digits of the applicable calendar year (CY), enter the number of passengers and quantity of cargo to be transported per quarter. If the number or quantity is dependent on the test schedule, enter the value per test and type the notation "per test" after the value entered.

BOX 1-9 Follow instructions for page 1010.

BOX 10 TRIP FREQ/QTR: Enter the number of trips anticipated per quarter.

BOX 11 LOCATION: Enter the name or number of the station, base, center, etc., in the appropriate column, where the personnel and/or cargo will be transported from and to.



Date: 11-79

1. CLASSIFICATION

| (PAGE TITLE)<br><b>SERVICES - GENERAL</b> |              |                       |              |  | 2. REPLACES PAGE (S) |         | 3. PAGE NO. <b>5300</b> |  |
|---|--------------|-----------------------|--------------|--|----------------------|---------|-------------------------|--|
|   |              |                       |              |  | DATED                |         | 4. DATE                 |  |
| 5. PROGRAM TITLE                          |              |                       |              |  | 6. PROGRAM NO.       |         | 7. REVISION NO.         |  |
| 8. ITEM NO.                               | 9. TEST CODE | 10. TYPE ITEM/SERVICE | 11. RA OR SA | 12. DATES, AMOUNTS, OR CHECK FOR REQUIRED ITEM/SERVICE |                      |         |                         | 13. PURPOSE AND REMARKS/SPECIAL INSTRUCTIONS |
|   |              |                       |              | FROM TO  | FROM TO              | FROM TO | FROM TO                 |  |
|   |              |                       |              |  |                      |         |                         |  |

UDS FORM R 503  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 5300 - SERVICES - GENERAL

**NOTE:** This form is used by the Requesting Agency to list requirements for services not covered elsewhere in this document. Separate pages should be used for each service, and this entry should be made in the Page Title box, i.e., Administrative, Air Operations, Facilities Operations and Maintenance, Marine Operations, Medical and Dental, Procurement, Storage and Housekeeping, and Miscellaneous.

BOX 1-9 Follow instructions for page 1010.

BOX 10 TYPE ITEM/SERVICE: Itemize the required item(s) or service(s).

BOX 11 RA OR SA: Indicate whether the item(s) and/or service(s) entered in Box 10 shall be Requesting Agency (RA) or Support Agency (SA).

BOX 12 DATES, AMOUNTS, OR CHECKS FOR REQUIRED ITEM/SERVICE: Enter dates (month and year) at the top of each period (FROM - TO columns) item(s)/service(s) may be required. Enter amounts (units of measure which may be expressed as number of persons, pounds, tons, gallons, square feet, etc., as applicable to specific line items) for each line item for the periods they are required. If the amounts (units) are not applicable, place checkmarks in appropriate columns for items required.

BOX 13 PURPOSE AND REMARKS-SPECIAL INSTRUCTIONS: State briefly the need for services requested and include any clarifying remarks which specifically describe items and amounts shown in Boxes 10 and 12. Should the required services need special instructions, enter these instructions in this space. When applicable, enter the name of the contractor(s) and contract number(s) for which this service/support is required.

| SERVICES - GENERAL GUIDELINES  |  |  |   |   |   |
|--|--|--|---|---|---|
| ADMINISTRATIVE SERVICES  | FACILITIES OPERATION AND MAINTENANCE   | PROCUREMENT, STORAGE AND HOUSEKEEPING SERVICES   | MEDICAL/DENTAL SERVICES   | AIR OPERATIONS SERVICES   | MARINE OPERATIONS   |
| Personnel Services<br>Personnel Records<br>Orders/Transportation Requests<br>Office Services<br>Typing, Stenography<br>Supplies<br>Equipment<br>Central Mail and Files<br>Reproduction<br>Office Space<br>Office Furniture<br>Security Services<br>Clearance and Entry<br>Classified Storage<br>Perimeter Guards<br>Police and Traffic Control<br>Fire Protection<br>Structural Crew<br>Crash-Fire Crew<br>Marine Fire Crew<br>Paid Fire Crew<br>Postal, Mail Distribution Services<br>Special Services<br>Education and Training<br>Recreation<br>Chapel and Chaplain<br>Bank<br>Library<br>Schools<br>Nursery<br>Grammar<br>Hien | Maintenance and Repair<br>Equipment (Project)<br>Fixed or Portable<br>Weight Handling<br>Transportation<br>Office<br>Construction<br>Buildings and Grounds (Project)<br>Labor Services<br>Janitor Services<br>Shop Services (Specify type req'd)<br>Utilities Operation/Maintenance<br>Electric Power<br>90 Cycle<br>400 Cycle<br>Direct Current<br>Hardline Communications<br>Administrative Telephones<br>PBX Facility<br>Cable Plant<br>Water<br>Potable/Non-Potable<br>Sanitary Facilities<br>Rest-Rooms/Portables<br>Trash/Garbage Collection<br>Land Transportation<br>Passenger Cars/Bus<br>Taxi Service<br>Trucking Service<br>Weight Handling Equipment | Procurement Services<br>Document Preparation<br>Requisitions<br>Specifications<br>Purchase Orders<br>Contract Administration<br>Shipping and Receiving<br>Packing and Crating<br>Loading and Trucking<br>Warehousing<br>Stock Control<br>Invoicing<br>Issue and Return<br>Inventory<br>Storage<br>Warehousing<br>Space Required<br>Equipment Required<br>Special Materials Storage<br>Temperature/Humidity Controlled<br>Refrigerated<br>Flammable<br>Explosive<br>Hazardous<br>POL Operations<br>Storage<br>Arsons<br>Jet Fuel<br>Diesel<br>Nopes<br>Lubricants<br>Messing Facilities<br>Retail Facilities<br>Exchange Services | Dispensaries<br>Military<br>Civilian<br>Dependents<br>On-site Hospital<br>Ambulance Service<br>Medical Evacuation Service<br>Medical Stand-by Crew<br>Launch Complex<br>Dock Site<br>A/C Operations<br>Health Protection<br>Sanitation or<br>Waste Disposal<br>Vector Control<br>Indigenous Medical Service<br>Dental Services<br>Preventive<br>Emergency | Flight Services<br>Tower Operations<br>Scheduling<br>Clearance<br>GCA/Tacem<br>Ground Support Service<br>Crash/Fire<br>Ground Handling Equipment<br>Fueling<br>Aircraft Parking<br>Weather Service<br>Terminal Operations<br>Aircraft Maintenance<br>Sea/Air Rescue | Harbor Facilities<br>Harbor Control<br>Channel Markers<br>Mooring<br>Wharf Docks<br>Dock Services<br>Boat Refueling<br>Boat Control<br>Tug Boat Operation<br>Intra-Atoll Boats<br>Manning<br>Scheduling<br>UDT Operations<br>Salvage Recovery<br>Surface Craft<br>SAR Boats<br>VIP Boats<br>Maintenance<br>Boats<br>Tugs<br>Harbor Craft<br>Intra-Atoll Boats<br>SAR Boats<br>Boat Components<br>Power Plants<br>Hulls<br>Outfitting<br>Emergency Ship Repair |

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>SERVICES - PROPELLANTS, GASES, AND CHEMICALS</b> |                 |                         |                           |                          | 2. REPLACES PAGE(S)<br>DATED _____ |        |     |      |                   | 3. PAGE NO. <b>5310</b> |                               |   |   |   |    |   |   |   |    |   |   |   |
|---|-----------------|-------------------------|---------------------------|--------------------------|------------------------------------|--------|-----|------|-------------------|-------------------------|-------------------------------|---|---|---|----|---|---|---|----|---|---|---|
| 5. PROGRAM TITLE  |                 |                         |                           |                          | 6. PROGRAM NO.                     |        |     |      |                   | 7. REVISION NO.         |                               |   |   |   |    |   |   |   |    |   |   |   |
| 8.<br>ITEM NO.  | 9.<br>TEST CODE | 10.<br>NAME/DESIGNATION | 11.<br>MILITARY SPEC. NO. | 12.<br>FEDERAL STOCK NO. | 13. UNITS                          |        |     |      |                   | 14.<br>RA OR SA         | 15. QUANTITY REQUIRED/QUARTER |   |   |   |    |   |   |   |    |   |   |   |
|   |                 |                         |                           |                          | TONS                               | POUNDS | SCF | GALS | X 10 <sup>3</sup> |                         | CY                            |   |   |   | CY |   |   |   | CY |   |   |   |
|   |                 |                         |                           |                          |                                    |        |     |      |                   |                         | 1                             | 2 | 3 | 4 | 1  | 2 | 3 | 4 | 1  | 2 | 3 | 4 |
|   |                 |                         |                           |                          |                                    |        |     |      |                   |                         |                               |   |   |   |    |   |   |   |    |   |   |   |
| 16. REMARKS   |                 |                         |                           |                          |                                    |        |     |      |                   |                         |                               |   |   |   |    |   |   |   |    |   |   |   |

UDS FORM R 504 NOV 79 REPLACES FORM R 504 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 5310 - SERVICES - PROPELLANTS, GASES AND CHEMICALS

**NOTE:** This form is used by the Requesting Agency to list program requirements for propellants, gases and chemicals.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **NAME/DESIGNATION:** List the missile propellants, gases, chemicals, lubricants, hydraulic fluids, preservatives and POL products required for conducting operations on the range. Include solid propellant fuels on this page. Do not include items that are applicable to equipment operated by the Support Agency or that are not used in support of operation.

BOX 11 **MILITARY SPEC. NO.:** Enter the number of the military specification which identifies and defines the entry in Box 10.

BOX 12 **FEDERAL STOCK NO.:** Enter appropriate number which identifies entry in Box 10.

BOX 13 **UNITS:** Enter an "X" in the appropriate unit column. A blank column is available to list another unit of measure, if required. Enter an exponent, if required, in the column entitled "X 10<sup>3</sup>." Select an exponential value so that the number typed in Box 15 does not exceed four digits. Decimal values may be rounded off to the nearest whole value within .5 percent, i.e., 100.2 should be entered as 100, 10.2 should be 10, 10.6 as 11.

BOX 14 **RA OR SA:** Indicate whether the items in Box 10 will be furnished by the Requesting Agency (RA) or by the Support Agency (SA).

BOX 15 **QUANTITY REQUIRED/QUARTER:** Estimate the consumption of the material per quarter for each of the 3 years, should the program continue that long.

BOX 16 **REMARKS:** Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

**NOTE:** List any of the following propellants, gases and chemicals or any others required:

Ammonia, Anhydrous (lb)  
Aniline (lb)  
Argon (SCF)  
Carbon Disulfide (lb)  
Ethylene Oxide (lb)  
Form 12 (lb)  
Furfural Alcohol (lb)  
Hexane (gal)  
JP-4 (gal)  
JP-5 (gal)  
Methanol (gal)  
Propane (gal)  
IRFNA (lb)  
UDETA (lb)

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>SERVICES - AIRCRAFT AND GROUND VEHICLE FUELS*</b> |              |                      |                        |                       | 2. REPLACES PAGE(S)<br>DATED _____ |        |       |      |              | 3. PAGE NO. 5320              |    |   |   |   |    |   |   |   |    |   |   |
|--|--------------|----------------------|------------------------|-----------------------|------------------------------------|--------|-------|------|--------------|-------------------------------|----|---|---|---|----|---|---|---|----|---|---|
| 5. PROGRAM TITLE   |              |                      |                        |                       | 6. PROGRAM NO.                     |        |       |      |              | 7. REVISION NO.               |    |   |   |   |    |   |   |   |    |   |   |
| 8. ITEM NO.  | 9. TEST CODE | 10. NAME/DESIGNATION | 11. MILITARY SPEC. NO. | 12. FEDERAL STOCK NO. | 13. UNITS                          |        |       |      | 14. RA OR SA | 15. QUANTITY REQUIRED/QUARTER |    |   |   |   |    |   |   |   |    |   |   |
|  |              |                      |                        |                       | TONS                               | POUNDS | CU FT | GALS |              | X 10 <sup>4</sup>             | CY |   |   |   | CY |   |   |   | CY |   |   |
|  |              |                      |                        |                       |                                    |        |       |      |              | 1                             | 2  | 3 | 4 | 1 | 2  | 3 | 4 | 1 | 2  | 3 | 4 |
| 16. REMARKS  |              |                      |                        |                       |                                    |        |       |      |              |                               |    |   |   |   |    |   |   |   |    |   |   |

UDS FORM R 504 NOV 79 REPLACES FORM R 504 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

[\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.]

Preparation Instructions: PAGE 5320 - SERVICES - AIRCRAFT AND GROUND VEHICLE FUELS

**NOTE:** This form is used to list requirements for aircraft and ground vehicle fuels.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **NAME/DESIGNATION:** Enter the types of aircraft, ground vehicle and ground power unit fuels required for conducting operations on the range, such as aviation gas, automotive gas, and diesel fuel. Do not list fuel requirements for any range operated equipment.

BOX 11 **MILITARY SPEC. NO.:** Enter the number of the military specification which identifies and defines the material.

BOX 12 **FEDERAL STOCK NO.:** Enter the appropriate number that identifies the entry in Box 10.

BOX 13 **UNITS:** Enter an "X" in the appropriate unit column. A blank column is available to list another unit of measure, if required. Enter an exponent, if required, in the column entitled "X 10<sup>4</sup>." Select an exponential value so that the number typed in Box 15 does not exceed four digits. Decimal values may be rounded off to the nearest whole value within .5 percent, i.e., 100.2 should be entered as 100, 10.2 as 10, 10.6 as 11.

BOX 14 **RA OR SA:** Indicate whether the item will be Requesting Agency (RA) or Support Agency (SA) furnished.

BOX 15 **QUANTITY REQUIRED/QUARTER:** Estimate the consumption of the material per quarter for the duration of the program.

BOX 16 **REMARKS:** Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>SERVICES - MISCELLANEOUS LUBRICANTS, HYDRAULIC<br>FLUIDS, PRESERVATIVES, ETC.* |                    |                         |                              |                             |           |        |     |      |    | 2. REPLACES PAGE(S)<br>DATED _____ |                       |                               |   | 3. PAGE NO.   5330<br>4. DATE _____ |   |    |   |   |   |    |   |   |   |
|--|--------------------|-------------------------|------------------------------|-----------------------------|-----------|--------|-----|------|----|------------------------------------|-----------------------|-------------------------------|---|-------------------------------------|---|----|---|---|---|----|---|---|---|
| 5. PROGRAM TITLE _____   |                    |                         |                              |                             |           |        |     |      |    | 6. PROGRAM NO. _____               |                       |                               |   | 7. REVISION NO. _____               |   |    |   |   |   |    |   |   |   |
| 8.<br>ITEM NO.   | 9.<br>TEST<br>CODE | 10.<br>NAME/DESIGNATION | 11.<br>MILITARY<br>SPEC. NO. | 12.<br>FEDERAL<br>STOCK NO. | 13. UNITS |        |     |      |    |                                    | 14.<br>RA<br>OR<br>SA | 15. QUANTITY REQUIRED/QUARTER |   |                                     |   |    |   |   |   |    |   |   |   |
|  |                    |                         |                              |                             | TONS      | POUNDS | SCF | GALS | YD | 10K                                |                       | CY                            |   |                                     |   | CY |   |   |   | CY |   |   |   |
|  |                    |                         |                              |                             |           |        |     |      |    |                                    |                       | 1                             | 2 | 3                                   | 4 | 1  | 2 | 3 | 4 | 1  | 2 | 3 | 4 |
|  |                    |                         |                              |                             |           |        |     |      |    |                                    |                       |                               |   |                                     |   |    |   |   |   |    |   |   |   |
| 16. REMARKS  |                    |                         |                              |                             |           |        |     |      |    |                                    |                       |                               |   |                                     |   |    |   |   |   |    |   |   |   |

UDS FORM R 504 REPLACES FORM R 504 DATED JUL 70  
NOV 79

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is a multipurpose form. The User is required to enter the title as shown above in the Page Title box.

Preparation Instructions: PAGE 5330 - SERVICES - MISCELLANEOUS LUBRICANTS, HYDRAULIC FLUIDS, PRESERVATIVES, ETC.

**NOTE:** This form is used to list requirements for lubricants, hydraulic fluids, preservatives, etc. Information entered on this form is for planning and programming purposes only. Proper documentation must be submitted to appropriate supply agency at time of requirement in order to obtain items listed hereon.

BOX 1-9 Follow instructions for page 1010.

BOX 10 NAME/DESIGNATION: Enter the types of lubricants, hydraulic fluids, preservatives, etc., required for missile, aircraft, ground vehicle and shop use such as lubricants, cutting oil, paints, solder, greases, solvents, preservatives, hydraulic fluids, hydraulic flushes, primers, welding gases, etc.

BOX 11 MILITARY SPEC. NO.: Enter the number of the military specification which identifies and defines the material.

BOX 12 FEDERAL STOCK NO.: Enter the appropriate number that identifies the entry in Box 10.

BOX 13 UNITS: Enter an "X" in the appropriate unit column. A blank column is available to list another unit of measure, if required. Enter an exponent, if required, in the column entitled "X 10<sup>n</sup>." Select an exponential value so that the number typed in Box 14 does not exceed four digits. Decimal values may be rounded off to the nearest whole value within .5 percent, i.e., 100.2 should be entered as 100, 10.2 as 10, 10.6 as 11.

BOX 14 RA OR SA: Indicate whether the item will be Requesting Agency (RA) or Support Agency (SA) furnished.

BOX 15 QUANTITY REQUIRED/QUARTER: Estimate the consumption of the material per quarter for the duration of the program.

BOX 16 REMARKS: Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br>SERVICES - VEHICLES AND GROUND HANDLING EQUIPMENT |                              |                 |                |               | 2. REPLACES PAGE(S)<br>DATED |                             | 3. PAGE NO. 5340 |   |   |    |   |   |   |                                     |  |  |  |
|---|------------------------------|-----------------|----------------|---------------|------------------------------|-----------------------------|------------------|---|---|----|---|---|---|-------------------------------------|--|--|--|
| 5. PROGRAM TITLE  |                              |                 |                |               | 9. TEST CODE                 |                             | 6. PROGRAM NO.   |   |   |    |   |   |   |                                     |  |  |  |
|   |                              |                 |                |               |                              |                             | 7. REVISION NO.  |   |   |    |   |   |   |                                     |  |  |  |
| 8.<br>ITEM NO.  | 10.<br>NAME AND NOMENCLATURE | 11.<br>CAPACITY | 12.<br>PURPOSE | 13.<br>% USED | 14.<br>RA OR SA              | 15. NUMBER REQUIRED/QUARTER |                  |   |   |    |   |   |   | 16.<br>REMARKS-SPECIAL INSTRUCTIONS |  |  |  |
|   |                              |                 |                |               |                              | CY                          |                  |   |   | CY |   |   |   |                                     |  |  |  |
|   |                              |                 |                |               |                              | 1                           | 2                | 3 | 4 | 1  | 2 | 3 | 4 |                                     |  |  |  |
|   |                              |                 |                |               |                              |                             |                  |   |   |    |   |   |   |                                     |  |  |  |

UDS FORM R 505 NOV 79 REPLACES FORM R 505 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 5340 - SERVICES - VEHICLES AND GROUND HANDLING EQUIPMENT

**NOTE:** This form is used by the Requesting Agency to list requirements for vehicles and ground handling equipment.

BOX 1-9 Follow instructions for page 1010.

BOX 10 **NAME AND NOMENCLATURE:** Enter the name of vehicles (to include local water vehicles, if any) and ground power units required, with appropriate military nomenclature, if applicable. Include all heavy equipment such as trailers, tractors, forklifts, sedans, trucks, railroad dollies, cranes, etc., and all ground power units, i.e., generators, APUs, etc. Use page 5210, Surface Logistics Schedule, for listing all surface transportation requirements of personnel and cargo.

BOX 11 **CAPACITY:** Indicate the capacity in number of passengers, tons, kVA, etc.

BOX 12 **PURPOSE:** State the purpose for which the equipment is required.

BOX 13: **% USED:** Indicate the percentage of use in terms of a 90-day quarter with a 24-hour day (2160 hours).

BOX 14 **RA OR SA:** Indicate whether the equipment will be Requesting Agency (RA) or Support Agency (SA) furnished.

BOX 15 **NUMBER REQUIRED/QUARTER:** This section is divided to account for the number of vehicles required for each quarter of 2 years. A 4-year forecast is requested (fill out additional sheets as required).

BOX 16 **REMARKS-SPECIAL INSTRUCTIONS:** If requirement is long term, enter number of vehicles and duration required in this column. Include any clarifying remarks or instructions which may be appropriate. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

Date: 7-70

1. CLASSIFICATION

|  |  |             |                      |                |                         |                 |
|--|--|-------------|----------------------|----------------|-------------------------|-----------------|
| (PAGE TITLE)<br><b>SERVICES - REQUESTING AGENCY AIRCRAFT</b> |  |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. <b>5350</b> |                 |
|  |  |             | DATED                |                | 4. DATE                 |                 |
| 5. PROGRAM TITLE   |  | 6. ITEM NO. | 7. TEST CODE         | 8. PROGRAM NO. |                         | 9. REVISION NO. |
| 10. PURPOSE  |  |             |                      |                |                         |                 |
| 11. STAGING AREAS AND DATES                                  |  |             |                      |                |                         |                 |
| 12. AIRCRAFT DESCRIPTION                                     |  |             | 13. SPECIAL SERVICES |                |                         |                 |
| TYPE   |  |             |                      |                |                         |                 |
| SER. NO.   |  |             |                      |                |                         |                 |
| FUEL   |  |             |                      |                |                         |                 |
| OIL  |  |             |                      |                |                         |                 |
| LUB  |  |             |                      |                |                         |                 |
| 14. REMARKS  |  |             |                      |                |                         |                 |

DD FORM 1306  
JULY 70

1. CLASSIFICATION

**Preparation Instructions: PAGE 5350--SERVICES - REQUESTING AGENCY AIRCRAFT**

**NOTE:** This form is used by the Requesting Agency to state requirements for support of its aircraft. Use a separate form for each aircraft.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **PURPOSE:** State briefly the need for support.

**BOX 11** **STAGING AREAS AND DATES:** Enter the staging areas where support will be required and the relevant dates by months or quarters and by calendar year.

**BOX 12** **AIRCRAFT DESCRIPTION:** Enter the type and serial number of the aircraft. Enter the type fuel, oil, and lubricants which will be required for servicing the aircraft.

**BOX 13** **SPECIAL SERVICES:** Enter any special services which will be required, such as ground power, ground air conditioning, aircraft maintenance, etc. Maintenance/calibration of Requesting Agency equipment by Support Agency should be detailed on Page 6010 and reference the appropriate item numbers.

**BOX 14** **REMARKS:** Enter any additional information needed for clarification.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>SERVICES - SEACRAFT</b> |              |                   |            |              | 2. REPLACES PAGE (S)<br><br>DATED _____ |              | 3. PAGE NO. <b>5360</b> |  |
|--|--------------|-------------------|------------|--------------|---|--------------|-------------------------|--|
| 5. PROGRAM TITLE                           |              |                   |            |              | 6. PROGRAM NO.                          |              | 7. REVISION NO.         |  |
| 8. ITEM NO.                                | 9. TEST CODE | 10. TYPE SEACRAFT | 11. HARBOR | 12. DURATION |   | 13. SERVICES |                         |  |
|  |              |                   |            | A. DAYS      | B. CY                                   |              |                         |  |
|  |              |                   |            |              |   |              |                         |  |

UDS FORM R 507  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 5360—SERVICES - SEACRAFT**

- NOTE:** This form is used to describe the services required by the Requesting Agency for seacraft while in port.
- BOX 1-9** Follow instructions for Page 1010.
- TYPE 10** **TYPE SEACRAFT:** Enter the specific type or model designation of the seacraft, i.e., C-3, Enterprise Class, etc.
- TYPE 11** **HARBOR:** Enter the name of the harbor(s) wherein the seacraft will be serviced.
- BOX 12** **DURATION:** Enter in Box A the number of days per year that the seacraft will be in the harbor specified in Box 11 as follows:
- Box A.** Enter the total number of days per calendar year.
- Box B.** Enter the calendar year.
- NOTE:** Provide the information for as many years as can be realistically estimated.

- BOX 13** **SERVICES:** Identify all services required for the seacraft while in harbor. Include requirements for docking facilities, loading/unloading facilities, electrical power, maintenance, supplies, etc.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

| (PAGE TITLE)<br><b>SERVICES - CHEMICAL CLEANING</b> |              |                      |        |                  | 1. REPLACES PAGE (S)<br><br>DATED |             | 3. PAGE NO. 5370 |  |
|---|--------------|----------------------|--------|------------------|-----------------------------------|-------------|------------------|--|
| 2. PROGRAM TITLE                                    |              |                      |        |                  | 6. PROGRAM NO.                    |             | 4. DATE          |  |
|   |              |                      |        |                  |                                   |             | 7. REVISION NO.  |  |
| 1. ITEM NO.   | 2. TEST CODE | 10. COMPONENT/SYSTEM |        |                  | 11. CLEANING REQUIREMENT          | 12. SERVICE |                  |  |
|   |              | A. NAME/DESCRIPTION  | B. QTY | C. SPECIFICATION |                                   |             |                  |  |
|   |              |                      |        |                  |                                   |             |                  |  |
| 13. REMARKS   |              |                      |        |                  |                                   |             |                  |  |
|   |              |                      |        |                  |                                   |             |                  |  |

UOS FORM R 508  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 5370—SERVICES - CHEMICAL CLEANING**

**NOTE:** This form is used by the Requesting Agency to list all requirements for chemical cleaning.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10 COMPONENT/SYSTEM:**

**Box A. NAME/DESCRIPTION:** List all components and/or systems by proper nomenclature, e.g., globe valve, hydraulic pump, etc. Give descriptive size and constituent material, e.g., Teflon, carbon steel, copper and copper alloys, stainless steel (martensitic, ferritic, austenitic, etc.).

**Box B. QTY:** Enter the quantity of components and/or systems to be cleaned.

**BOX C. SPECIFICATION:** Enter the applicable drawing/specification number for each entry in Box A. Drawing/specifications are to be provided to the Support Agency.

**BOX 11 CLEANING REQUIREMENT:** Describe the cleaning requirement or reference the applicable cleaning specification. A list of special tools, if required for specific components, should be included.

**BOX 12 SERVICE:** Enter the type of service associated with the use of the component/system in Box 10A, e.g., GN<sub>2</sub>, hydraulic, LOX, H<sub>2</sub>O<sub>2</sub>, etc.

**BOX 13 REMARKS:** Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.



## 1. CLASSIFICATION

UDS FORM R 509      REPLACES FORM R 509 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

**NOTE:** This form is used by the Requesting Agency to list equipment or supplies to be purchased locally by the Support Agency or those items that are base funded.

BOX 10 NAME/DESIGNATION: List the equipment or supplies to be obtained by the support bases.

**BOX 11**      **MILITARY SPEC. NO.:** Enter the number of the military specification which identifies and defines the entry in Box 10.

BOX 13 UNITS: Enter the quantity or amount required.

BOX 14 ESTIM. COST: Enter the approximate cost of the items required.

BOX 15 QUANTITY REQUIRED/QUARTER: Estimate the quantity or amount of equipment or supplies required per quarter for each of the 3 years should the program continue for that period.

Date: 7-70

1. CLASSIFICATION \_\_\_\_\_

|   |              |                               |                     |
|---|--------------|-------------------------------|---------------------|
| 1. (PAGE TITLE)<br>LABORATORY - GENERAL * |              | 2. REPLACES PAGE (S)<br>DATED | 3. PAGE NO.<br>5400 |
| 5. PROGRAM TITLE                          |              | 6. PROGRAM NO.                | 7. REVISION NO.     |
| 8. ITEM NO.                               | 9. TEST CODE | 10. DISCUSSION *              |                     |
|   |              |                               |                     |

IDS FORM 2 G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 5400—LABORATORY - GENERAL

NOTE: This form is used by the Requesting Agency to specify general laboratory requirements. Specific analysis requirements are noted on Page 5410.

BOX 1-9 Follow instructions for Page 1010.

BOX 10 DISCUSSION: Define the requirements for laboratory support.

Date: 7-70

|  |              |                      |                    |                                  |  |                    |  |
|--|--------------|----------------------|--------------------|----------------------------------|--|--------------------|--|
| 1. CLASSIFICATION _____                        |              |                      |                    | 2. REPLACES PAGE (S)             |  | 3. PAGE NO. 5410   |  |
| (PAGE TITLE)<br>CHEMICAL AND PHYSICAL ANALYSIS |              |                      |                    | 4. DATE                          |  |                    |  |
| 5. PROGRAM TITLE                               |              |                      |                    | 6. PROGRAM NO.                   |  | 7. REVISION NO.    |  |
| 8. ITEM NO.                                    | 9. TEST CODE | 10. NAME/DESIGNATION | 11. MIL. SPEC. NO. | 12. DETAILS OF ANALYSIS REQUIRED |  | 13. SAMPLING TIMES |  |
|  |              |                      |                    |                                  |  |                    |  |
| 14. REMARKS                                    |              |                      |                    |                                  |  |                    |  |

UDS FORM R 510  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 5410—CHEMICAL AND PHYSICAL ANALYSIS**

**NOTE:** This form is used by the Requesting Agency to list requirements for chemical and physical analysis. These services encompass areas such as chemical consultant services, instrumentation analysis, wet chemistry, gas analysis, metallurgical services, contamination and surface corrosion studies, and many other specific chemical problems concerned with a mission/program.

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **NAME/DESIGNATION:** List the names of the propellants, gases, or chemicals for which chemical analysis is required. This listing will not prevent examination of unknowns which may be submitted for analysis at any time.

**BOX 11** **MILITARY SPECIFICATION NUMBER:** Reference military specifications or other specifications which each item in Box 10 must meet.

**BOX 12** **DETAILS OF ANALYSIS REQUIRED:** State the chemical and/or physical analysis required for each item listed in Box 10. Include specific chemical elements and common or anticipated particles or impurities for which analysis is required. State methods of sampling and/or analysis if special methods are required.

**BOX 13** **SAMPLING TIMES:** State when and how often samples and analysis are required and when test results are required, referred to F-day (Fueling Day). For example, on receipt and one/day thereafter, once on F-1 Day, etc.

**BOX 14** **REMARKS:** Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

Date: 7-70

|                   |  |                      |  |                  |  |
|-------------------|--|----------------------|--|------------------|--|
| 1. CLASSIFICATION |  | 2. REPLACES PAGE (S) |  | 3. PAGE NO. 5420 |  |
| 4. DATE           |  | 5. PROGRAM NO.       |  | 6. REVISION NO.  |  |
| 7. PROGRAM TITLE  |  | 8. DESCRIPTION *     |  |                  |  |
| 9. ITEM NO.       |  | 10. TEST CODE        |  |                  |  |

U.S. FORM 9 G/A  
JULY 70

1. CLASSIFICATION

\*The form illustrated above is one of three multi-purpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title Box and an appropriate sub-title in Box 10.

Preparation Instructions: PAGE 5420--LABORATORY - SPECIAL ENVIRONMENT

**NOTE:** This form is used to describe unique environmental requirements with respect to data storage, quarantine of personnel, sample, equipment or experiment handling or working conditions. For example, requirements for film storage, quarantine of space travelers, handling of lunar or planetary samples or lighting requirements for work or photography.

**BOX 1-9** Follow Instructions for Page 1010.

**BOX 10** **DESCRIPTION:** Describe the nature of the item requiring special environment and the environment. Give details of required atmosphere, thermal properties, radiation, shielding, lighting intensity or any other parameter required to define the environment.

| 1. CLASSIFICATION                       |                    | 2. REPLACES PAGE (S) |  | 3. PAGE NO.<br>5300 |  |
|---|--------------------|----------------------|--|---------------------|--|
| (PAGE TITLE)<br>MAINTENANCE - GENERAL * |                    | GATES                |  | 4. DATE             |  |
| 5. PROGRAM TITLE                        |                    | 6. PROGRAM NO.       |  | 7. REVISION NO.     |  |
| 8.<br>ITEM NO.                          | 9.<br>TEST<br>CODE | 10.<br>DESCRIPTION * |  |                     |  |
|   |                    |                      |  |                     |  |

## 1. CLASSIFICATION

Preparation Instructions: PAGE 5500—MAINTENANCE - GENERAL

BOX 10 DESCRIPTION: Enter requirements for maintenance and repair of Requesting Agency equipment. Include requirements for shop services such as sheet metal fabrication, carpentry, painting, welding, machining, etc.

Date: 11-79

1. CLASSIFICATION \_\_\_\_\_

|   |              |          |                      |                  |          |                             |     |              |   |                  |   |    |   |   |   |    |   |   |   |    |   |   |   |
|---|--------------|----------|----------------------|------------------|----------|-----------------------------|-----|--------------|---|------------------|---|----|---|---|---|----|---|---|---|----|---|---|---|
| (PAGE TITLE)<br><b>FACILITIES - GENERAL</b> |              |          |                      |                  |          | 2. REPLACES PAGE(S)<br>DATE |     |              |   | 3. PAGE NO. 5600 |   |    |   |   |   |    |   |   |   |    |   |   |   |
| 5. PROGRAM TITLE                            |              |          |                      |                  |          | 6. PROGRAM NO.              |     |              |   | 7. REVISION NO.  |   |    |   |   |   |    |   |   |   |    |   |   |   |
| 8. ITEM NO.                                 | 9. TEST CODE | 10. LOC. | 11. TYPE OF FACILITY | 12. SITE DESIRED | 13. STA  |                             |     | 14. SCHEDULE |   |                  |   |    |   |   |   |    |   |   |   |    |   |   |   |
|   |              |          |                      |                  | ASSIGNED | EXISTING                    | NEW | CY           |   |                  |   | CY |   |   |   | CY |   |   |   | CY |   |   |   |
|   |              |          |                      |                  |          |                             |     | 1            | 2 | 3                | 4 | 1  | 2 | 3 | 4 | 1  | 2 | 3 | 4 | 1  | 2 | 3 | 4 |
| 15. REMARKS                                 |              |          |                      |                  |          |                             |     |              |   |                  |   |    |   |   |   |    |   |   |   |    |   |   |   |

UDS FORM R 511 NOV 79 REPLACES FORM R 511 DATED JUL 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: PAGE 5600 - FACILITIES - GENERAL

**NOTE:** This form is used for the assignment, reassignment, or programming of facilities.

BOX 1-9 Follow Instructions for page 1010.

BOX 10 LOC: Indicate the location, i.e., installation, island, etc.

BOX 11 TYPE OF FACILITY: List facilities to include such items as:

Administrative Space  
Hangar  
Shops and Laboratories  
Open Storage  
Launch Pads  
Guidance Buildings  
Electrical Power  
Runway and/or Skid Strip

Missile Assembly (building(s))  
Aircraft Ramp Space  
Warehouses  
Blockhouses  
Missile Static Checkout Pads  
Static Engine-Run Pads and Compass Rose  
Loading Pits or Ramps

BOX 12 SITE DESIRED: Indicate specific area where the facility is required.

BOX 13 STATUS: Indicate by checking in the appropriate column whether the requested facility has already been assigned to the program, whether it is an existing facility, or whether an entirely new facility must be constructed.

BOX 14 REMARKS: Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

Date: 7-70

|                                       |  |             |                      |                |                           |  |
|---------------------------------------|--|-------------|----------------------|----------------|---------------------------|--|
| 1. CLASSIFICATION _____               |  |             | 2. REPLACES PAGE (S) |                | 3. PAGE NO. 5610          |  |
| (PAGE TITLE)<br>FACILITIES - DRAWINGS |  |             | DATED                |                | 4. DATE                   |  |
| 5. PROGRAM TITLE                      |  | 6. ITEM NO. | 7. TEST CODE         | 8. PROGRAM NO. | 7. REVISION NO.           |  |
| 10. DRAWING                           |  |             |                      |                | 11. REFERENCES (DRAWINGS) |  |
|                                       |  |             |                      |                |                           |  |
|                                       |  |             |                      |                |                           |  |

FORM 5600-1-512  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

**Preparation Instructions: PAGE 5610—DRAWINGS - FACILITIES**

**NOTE:** This form is used to provide drawings which complement the information presented in Page 5600 (Facilities - General).

**BOX 1-9** Follow instructions for Page 1010.

**BOX 10** **DRAWING:** Enter a plot plan showing the desired location of the individual facilities listed for each site on Page 5600 (use additional pages as appropriate to show plot plans of more than one site if required). Specify how each facility is related to other items.

**BOX 11** **REFERENCES:** Cross reference all of the Requesting Agency's drawings, reports, site plans, letters, preliminary design criteria, etc., which are submitted directly to the Support Agency as a detailed definition and description of the utilities and scope of facilities required.

Date: 7-70

1. CLASSIFICATION

|  |  |  |                               |  |                             |                 |
|--|--|--|-------------------------------|--|-----------------------------|-----------------|
| (PAGE TITLE)<br><b>FACILITIES - LAUNCHER AND PLATFORM CHARACTERISTICS</b>                            |  |  | 2. REPLACES PAGE (S)<br>DATED |  | 3. PAGE NO. 5620<br>4. DATE |                 |
| 5. PROGRAM TITLE   |  | 6. ITEM NO.  | 7. TEST CODE                  | 8. PROGRAM NO.                                       |                             | 9. REVISION NO. |
| 10. TYPE OF LAUNCH PAD/PLATFORM  |  | 11. SIZE OF LAUNCH PAD/PLATFORM  |                               | 12. DESCRIPTION OF LAUNCH OPERATIONS                 |                             |                 |
| 12. LOCATION OF LAUNCH PAD/PLATFORM  |  | 13. SIMULATOR<br>A. TYPE B. RA/SA  |                               |  |                             |                 |
| 14. DESCRIPTION OF LAUNCH PAD OR PLATFORM  |  |  |                               |  |                             |                 |
| 15. TYPE OF LAUNCHER   |  | 16. SIZE OF LAUNCHER   | 17. LAUNCHER WEIGHT           | 18. RA/SA  |                             |                 |
| 19. LAUNCHER AZIMUTH<br>A. ATTITUDE<br>B. POSITION ACCURACY DESIRED<br>C. POSITION ACCURACY REQUIRED |  | 20. LAUNCHER ELEVATION<br>A. ATTITUDE<br>B. POSITION ACCURACY DESIRED<br>C. POSITION ACCURACY REQUIRED |                               | 21. DESCRIPTION OF POSITIONING METHODS AND EQUIPMENT |                             |                 |
| 21. DESCRIPTION OF LAUNCHER  |  |  |                               |  |                             |                 |

REF 5620-5-113  
JULY 70

1. CLASSIFICATION

Preparation Instructions: PAGE 5620--FACILITIES - LAUNCHER AND PLATFORM CHARACTERISTICS

- NOTE: This form is used to provide a description of the launcher and platform characteristics.
- BOX 1-9 Follow instructions for Page 1010.
- BOX 10 TYPE OF LAUNCH PAD/PLATFORM: Land, ship, plane, etc., stationary or portable.
- BOX 11 SIZE OF LAUNCH PAD/PLATFORM: Enter overall dimensions.
- BOX 12 LOCATION OF LAUNCH PAD/PLATFORM: Enter pertinent launcher location requirements, e.g., location with respect to coast line for land-based or underwater platforms.
- BOX 13 SIMULATOR: If a launch platform simulating ship, submarine, or other launch platform will be required at the range, indicate type and whether simulator will be furnished by the Requesting Agency (RA) or Support Agency (SA).
- BOX 14 DESCRIPTION OF LAUNCH PAD/PLATFORM: Describe pertinent launch pad or platform characteristics, e.g., construction, special instruments, special power requirements, cooling water, etc.
- BOX 15 TYPE OF LAUNCHER: Enter launcher type, e.g., zero length, rail.
- BOX 16 SIZE OF LAUNCHER: Enter overall dimensions of launcher.
- BOX 17 WEIGHT OF LAUNCHER: Enter launcher weight.
- BOX 18 RA/SA: State if launcher to be used at the range is to be furnished by the Requesting Agency (RA) or Support Agency (SA).
- BOX 19 LAUNCHER AZIMUTH:  
Box A. ATTITUDE: Enter launcher azimuth arc in degrees.  
Box B. POSITION ACCURACY DESIRED: Enter desired accuracy of launcher position.  
Box C. POSITION ACCURACY REQUIRED: Enter required accuracy of launcher position.
- BOX 20 LAUNCHER ELEVATION:  
Box A. ATTITUDE: Enter launcher elevation as referenced to horizontal.  
Box B. POSITION ACCURACY: Enter desired accuracy of launcher position.  
Box C. POSITION ACCURACY: Enter required accuracy of launcher position.
- BOX 21 DESCRIPTION OF LAUNCHER: Describe pertinent launcher characteristics, e.g., construction, special features, maintenance, etc.
- BOX 22 DESCRIPTION OF LAUNCH OPERATION: Describe briefly and in sequence the tasks involved in placing the missile on the launcher and in preparing the missile for launch. Include salvo launch preparations, if any, dry-runs, and captive A/A, A/S tests.
- BOX 23 DESCRIPTION OF POSITIONING METHODS AND EQUIPMENTS: Describe the methods and equipment used to position the launcher in azimuth and elevation, and for measuring launcher position.



Date: 11-79

| 1. CLASSIFICATION _____                   |              | 2. REPLACES PAGE (S) | 3. PAGE NO. 6000 |
|---|--------------|----------------------|------------------|
| (PAGE TITLE)<br>OTHER SUPPORT - GENERAL - |              | DATED                | 4. DATE          |
| 5. PROGRAM TITLE                          |              | 6. PROGRAM NO.       | 7. REVISION NO.  |
| 8. ITEM NO.                               | 9. TEST CODE | 10.                  |                  |

US FORM 10-1/4  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

[The form illustrated above is one of three multipurpose general forms. The User may select the form most appropriate depending upon the desired location of Boxes 8 and 9. Enter the title as shown above in the Page Title box and an appropriate subtitle in Box 10.]

Preparation Instructions: PAGE 6000 - OTHER SUPPORT - GENERAL

NOTE: This form is used by the Requesting Agency to specify support requirements not covered by other forms or provided for elsewhere in this document.

BOX 1-9 Follow instructions for page 1010.

BOX 10 Define the support requirements.

Date: 11-79

## 1. CLASSIFICATION

[illegible]

UDS FORM R 600      REPLACES FORM R 600 DATED JUL 70  
NOV 79

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 6010 - TEST INSTRUMENT MAINTENANCE AND CALIBRATION

NOTE: This form is used by the Support Agency to plan and schedule test instrument calibration on a periodic basis. Each missile or vehicle contractor and/or subcontractor, Requesting Agency, and organization which requires maintenance and calibration service for its precision electronic (electronic and electrical) or mechanical (dimensional and physical) test instruments will list its instruments on this form.

Do not combine electrical and mechanical instruments on the same page. Use separate pages for each and enter the appropriate words in Box 5 to indicate which category of instruments is listed on this page.

BOX 1-9      Follow instructions for page 1010.

BOX 10      PRECISION ELECTRONIC OR MECHANICAL MEASURING  
EQUIPMENT:

Box A. NAME/DESIGNATION: List all of the precision electronic or mechanical measuring instruments which will be used on the range, i.e., multimeters, voltage meters, frequency meters, etc.

Box 8. RANGE OR SCALE AND UNITS: Enter the range(s) or scale(s) of each item listed in the preceding column. Indicate the unit of measure, i.e., d.c.V, a.c.V, A, etc.

Box C. NAME OF MANUFACTURER: Enter the name of the manufacturer of each instrument listed.

Box D. MODEL NO.: Enter the model number of each instrument listed.

Box E. SERIAL NO.: Enter the serial number of each instrument listed.

BOX 11      CALIBRATION: .

Box A. CYCLE-MONTHS: Enter the desired calibration cycle in months.

Box B. TIME-DAYS: Enter the number of days allowed for the calibration of each instrument listed.

Box C. IN PLACE - YES-NO: Enter an "X" in the appropriate column to indicate whether each instrument listed will require calibration in place. If yes, complete the information required in Box 12.

BOX 12 ACCURACY REQUIRED: Enter the accuracy required if other than the manufacturer's recommended or stated accuracy.

BOX 13 UNITS: Enter a 3-year forecast of the number of units requiring calibration service. The first quarter of the forecast will be the quarter in which the first instruments will be submitted for calibration.

BOX 14 REMARKS: Enter additional information, as necessary, to clarify the requirements. When applicable, enter the name of the contractor(s) and contract number(s) for which the service/support is required.

Date: 11-79

## 1. CLASSIFICATION

|                                   |                             |                      |                   |                  |  |
|-----------------------------------|-----------------------------|----------------------|-------------------|------------------|--|
| (PAGE TITLE)                      |                             | 2. REPLACES PAGE (S) |                   | 3. PAGE NO. 6020 |  |
| REQUIREMENTS FOR SUPPORT AGENCIES |                             | DATED                |                   | 4. DATE          |  |
|                                   |                             | 5. PROGRAM NO.       |                   | 7. REVISION NO.  |  |
| 1. PROGRAM TITLE                  |                             | 6. TEST CODE         |                   | 8. PROGRAM NO.   |  |
| 9. ITEM NO.                       | 10. REFERENCE PAGE/ITEM NO. | 11. REQUIREMENT      | 12. DATA PRIORITY | 13. COMMENTS     |  |
|                                   |                             |                      |                   |                  |  |

UOS FORM R 601  
JULY 70

## 1. CLASSIFICATION

## Preparation Instructions: PAGE 6020 - REQUIREMENTS FOR SUPPORT AGENCIES

NOTE: This form is used by the lead range to list support needs of range Users.

90X 1-9 Follow instructions for page 1010.

BOX 10      REFERENCE PAGE/ITEM NO.: Enter the page number of each support range requirement in this column. Only one item number should be contained in one reference, e.g., if page 2210, Telemetry - Recording Interval, contains two item numbers which are to be referenced, this would be given two separate item numbers on this page.

**BOX 11 REQUIREMENT:** Enter the support requirements categorically, e.g., telemetry recording, metric data, communication recording, etc. Specific requirements for the support range must be identified if they consist of only a portion of the total requirement reflected in an item in Box 10.

**BOX 12 DATA PRIORITY:** Indicate whether the data requirement is mandatory (M), required (R), or desired (D). (See volume 2, subparagraph 1.7.6.4, for further explanation of priority.)

**BOX 13** COMMENTS: Enter any appropriate comments. Enter "Range Requirement" if it is (is also) levied by the range.

Date: 11-79

|                         |  |                      |  |                 |  |
|-------------------------|--|----------------------|--|-----------------|--|
| 1. CLASSIFICATION _____ |  | 2. REPLACES PAGE (S) |  | 3. PAGE NO.     |  |
| 4. DATE                 |  | 5. PROGRAM NO.       |  | 7. REVISION NO. |  |
| 6. PROGRAM TITLE        |  | 8. TEST CODE         |  | 9. TEST CODE    |  |
| 10. ITEM NO.            |  | 11. TEST CODE        |  | 12. TEST CODE   |  |

UDS FORM R G/A  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: FORM R G/A - General Form

**NOTE:** This form is used anywhere in this document when narrative or graphic data cannot be presented on the prescribed numbered form. Specifically, it must be used in those sections as shown in column 11 of page 1040, Index of UDS Forms and Document Outline. Whenever used, the most appropriate general form G/A, G/B, or G/C will be selected. The page number and title appropriate to the section will be taken from page 1040, Index of UDS Forms and Document Outline, or sample pages shown in this section of volume 2. When it becomes necessary to design a new form for submission to the Documentation Group (DG) for approval, an appropriate form G/A, G/B, or G/C may be used.

BOX 1-9 Follow instructions for page 1010.

BOX 10 Enter a narrative or graphic description of the requirement. Refer to the sample forms and instructions shown in this section of volume 2 for detailed procedures.

Date: 11-79

|                         |     |                      |                |                 |
|-------------------------|-----|----------------------|----------------|-----------------|
| 1. CLASSIFICATION _____ |     | 2. REPLACES PAGE (S) |                | 3. PAGE NO.     |
| (PAGE TITLE)            |     | 4. DATE              |                | 5. DATE         |
| 6. PROGRAM TITLE        |     | 7. TEST CODE         | 8. PROGRAM NO. | 9. REVISION NO. |
| 10. ITEM NO.            | 11. |                      |                |                 |

UDS FORM 1-9  
JULY 70

1. CLASSIFICATION \_\_\_\_\_

Preparation Instructions: FORM R G/B - General Form

**NOTE:** This form is used anywhere in this document when narrative or graphic data cannot be presented on the prescribed numbered form. Specifically, it must be used in those sections as shown in column 11 of page 1040, Index of UDS Forms and Document Outline. Whenever used, the most appropriate general form G/A, G/B, or G/C will be selected. The page number and title appropriate to the section will be taken from page 1040, Index of UDS Forms and Document Outline, or sample pages shown in this section of volume 2. When it becomes necessary to design a new form for submission to the Documentation Group (DG) for approval, an appropriate form G/A, G/B, or G/C may be used.

80X 1-9 Follow instructions for page 1010.

80X 10 Enter a narrative or graphic description of the requirement. Refer to the sample forms and instructions shown in this section of volume 2 for detailed procedures.

Date: 11-79

| 1. CLASSIFICATION |             |              | 2. REPLACES PAGE (S) |                 | 3. PAGE NO. |  |
|-------------------|-------------|--------------|----------------------|-----------------|-------------|--|
| (PAGE TITLE)      |             |              | DATED                |                 | 4. DATE     |  |
| 5. PROGRAM TITLE  | 6. ITEM NO. | 7. TEST CODE | 8. PROGRAM NO.       | 9. REVISION NO. |             |  |
| 10.               |             |              |                      |                 |             |  |

UDS FORM R G/C  
JULY70

1. CLASSIFICATION

Preparation Instructions: FORM R G/C - General Form

**NOTE:** This form is used anywhere in this document when narrative or graphic data cannot be presented on the prescribed numbered form. Specifically, it must be used in those sections as shown in column 11 of page 1040, Index of UDS Forms and Document Outline. Whenever used, the most appropriate general form G/A, G/B, or G/C will be selected. The page number and title appropriate to the section will be taken from page 1040, Index of UDS Forms and Document Outline, or sample pages shown in this section of volume 2. When it becomes necessary to design a new form for submission to the Documentation Group (DG) for approval, an appropriate form G/A, G/B, or G/C may be used.

BOX 1-9 Follow instructions for page 1010.

BOX 10 Enter a narrative or graphic description of the requirement. Refer to the sample forms and instructions shown in this section of volume 2 for detailed procedures.