

Appendix 4 Definitions

For

**Kennedy Space Center Integrated
Communications Services (KICS)**

Acceptance Testing - the testing of a system, subsystem, assembly or subassembly, in an operational environment, to ensure that the performance of the aggregate is not compromised by the integration of the newly developed or modified asset.

Availability - the percentage of a scheduled service delivered to the user. Availability is measured as: $100 * (\text{number of scheduled service time in a reporting period} - \text{the time the scheduled service was not provided during a reporting period}) / (\text{number of scheduled minutes in a reporting period})$. This equals the percentage of scheduled service delivered to the user during a reporting period.

Brick and Mortar Services - Includes services such as maintenance of antennas; buildings; roads; grounds; water wells; sewage disposal system; special vehicles, such as cherry pickers and ambulance; airport runway and aircraft parking structure; and equipment used for power generation, power distribution, heating, ventilation, air conditioning, fire detection and suppression, water storage and distribution, hazardous material storage and disposal; internal telephone system, fiber optic and hard line intersite connections, cafeteria food storage and preparation, and machine vending services. It also includes the preparation and updating of engineering documentation, and preparation of bid packages for minor non-technical facilities construction contracts.

Certification - the process of determining and attesting to a required level of value, performance and readiness.

Chief Quality Assurance Evaluator (CQAE) - The senior government representative who, together with the contracting officer, is responsible for the overall surveillance and assessment of contractor performance on the contract.

Commercialization - The situation where NASA allows contractors to utilize government-owned facilities or equipment for commercial enterprise.

Commercial Off the Shelf (COTS) Software - software that is commercially available and maintained by a vendor. Internet software is not COTS software, unless there is an associated maintenance contract through a vendor. Custom software maintained by the government or the contractor is not COTS software.

Contracting Officer (CO) - The individual appointed by the contracting activity for procuring and/or administering a contract. The Contracting Officer is the only person authorized to direct contractor performance, execute amendments to the contract, and contractually obligate the government.

Contract Specialist - The individual within the contracting office who performs the day-to-day administration of the contract. The contract specialist may also be the contracting officer.

Coordination - This definition contains typical functions associated with the interaction with the internal and external service providers, other contractors, and the customer as necessary to meet customer service requirements. These functions include:

- a) Supporting the development of customer requirements.
- b) Providing service status.
- c) Obtaining customer feedback.
- d) Providing consultation for reporting and resolving service problems.
- e) Operations coordination (e.g., airspace interference, radio-frequency interference).
- f) Interagency coordination.

Countdown (Range Users) - The detailed Range User countdown is prepared by the Range User to supplement the general countdown in the Operation Requirements (OR). The countdown is used by operations support people during the operation.

Criticality Level 1S – A single failure in a safety or hazard monitoring system that could cause the system to fail to detect, combat, or operate when needed during the existence of a hazardous condition and could result in loss of life or flight hardware.

Customer - NASA enterprises, which can be divided into NASA entities and non-NASA entities. NASA entities include NASA centers and institutions, and programs and projects and their associated contractors. Non-NASA entities include other government agencies, international space partners, universities and research institutes, and commercial entities. A customer is also an organization that pays for the service that is used.

Data Requirement Description - A detailed description of a required data item, including purpose, content, format, references, maintenance requirements, submittal requirements, and other pertinent information.

Data Reduction - The functions that acquire, normalize, and merge telemetry data, perform data processing, and produce data products (e.g., database population, plots, tapes). Although the telemetry data is acquired in real-time, the data processing is performed in near-realtime.

Development - the process whereby new hardware and software capability is introduced into a system. Development encompasses those activities required to create new systems or enhance existing systems beyond their as-built capabilities and performance. It includes the functions of product design, product fabrication or programming, product specification testing and acceptance, and product integration and test.

Development Services - a service provided that results in the development of a hardware, firmware, or software product. Also includes, the integration and installation of the developed product into an existing system.

Documentation - This definition contains typical functions associated with the preparation of technical documents. This information shall be available in both a hard copy and electronic format and comply with the policies and requirements set forth by NASA. These functions include:

- a) Configuration control of document changes.
- b) Record and provide change processing and implementation status of services.
- c) Providing technical reports and requirements documents.
- d) Providing design documents.
- e) Providing system configuration documents.
- f) Providing technical plans and procedures.
- g) Storing technical documentation.
- h) Providing documentation services for Government generated documents.

Emergency request - a request for service or services by a requestor who has determined that the request warrants having expedited handling.

End-to-End - used to delineate the boundaries of a system. In the context of this contract, end-to-end means the two-way path from the spacecraft to the ground antenna through the ground systems, the communications systems, to the user system, such as a control center or payload processing facility.

End-to-End testing - the testing, in an operational environment, to ensure that data flows from each one end to the other end of a defined end-to-end system and meets documented performance and data flow and data accuracy requirements and data interface agreements.

Expectation - The level of performance which would be considered to fall in the "GOOD" range for performance evaluation purposes (Effective performance; fully responsive to contract requirements. Reportable deficiencies, but with little identifiable effect on overall performance.)

Expedite or Revision - An Expedite or Revision is prepared by the User when immediate support is required and when processing and publication of an OR would seriously delay a program. The User will follow up with an OR Revision if the change is permanent. A one-time change need not be followed up with an OR.

Facility - the location where various mission services, data services, and center unique services are performed.

First level troubleshooting - receipt of trouble calls, problem isolation and resolution of minor problems (e.g., lost password, software question), dispatch of problem reports to the proper maintenance agency, and customer follow-up.

FTS2000 - the Government Service Administration's (GSA) Federal Telecommunications System 2000 (FTS2000). FTS2000 is comprised of Network A, provided by AT&T and Network B, provided by Sprint. Both networks provide data,

voice, video, and messaging services. A government mandate is in effect directing government agencies to utilize FTS2000 services. NASA has services on both Network A and B.

Full Cost Accounting – The accounting methodology for assigning cost to the NASA program or fund source responsible for incurring the cost.

Functional Area - The organization having responsibility for the actual performance of a given service whether it is performed in-house or by contract.

Functional Area Chief (FAC or FC) - The government representative responsible for a functional area where the services are provided by a contractor.

Government Furnished Equipment (GFE) - Equipment or property in the possession of, or directly acquired by, the government and subsequently made available to the contractor. This includes all property or equipment owned by or leased to the government, acquired by the government, or acquired with government funds.

Ground System - consists of the infrastructure (i.e., facilities and tools) and the service operators required to operate the infrastructure (i.e., network monitors, facility schedulers, tape operators, system administrators, etc.).

Ground System Operations - This definition contains typical functions required to accomplish the operations of the telecommunications and computing assets used to deliver the services in the statement of work. These functions include:

- a) Development and configuration management of operations processes and procedures in accordance with operations and service requirements, as well as capabilities and performance agreements.
- b) Operations of equipment and services according to operations agreements, procedures, and negotiated schedules.

Higher level data - Higher level data consists of Level 1, 2, and 3 data, which are defined as:

Level 1: Calibrated instrument data giving the physical parameters actually measured by the sensors.

Level 2: Calculated parameters which use Level 1 data as an input

Level 3: Smoothed and grided Level 2 data.

In-family – NASA signature not required. Systems shown in this appendix are managed by an IDS communications TRP. Standard system provisioning is providing an as-designed system for communications services.

(Does not include first-time use of a service at a facility.) Changes can involve adding cards to a chassis (but not adding another chassis to a system). NASA signature

is not required.

a. Critical and Process-Sensitive

The following is a list of systems and what constitutes a standard service:

1. OIS-D, including, but not limited to, additions, moves, and deletions of:
 - a) OIS units
 - b) Speaker monitors
 - c) Headset jacks
 - d) Cross-connects
 - e) Jack boxes
2. OIS-Q, including, but not limited to, additions, moves, and deletions of:
 - a) OIS units
 - b) Cross-connects
 - c) Jack boxes
3. VDMS, including, but not limited to, additions, moves, and deletions of:
 - a) Voice, data, and aggregate cards
 - b) Data circuits
4. P/AWS, including, but not limited to, additions, moves, and deletions of:
 - a) Local microphones
 - b) Audio mixers and mixer extenders (not area warning)
 - c) Power amplifiers (not area warning)
 - d) Speakers
 - e) 70-volt distribution
5. Astro-comm - None
6. Radio, including, but not limited to, additions, moves, and deletions of:
 - a) Mobile and portable (including vehicle) radios
 - b) Remote units
 - c) Programming of mobile and portable radios
7. Wideband transmission systems (WBTSs) including, but not limited to, additions, moves, and deletions of:
 - a) Circuits
 - b) System equipment (not Range Safety)
8. Outside fiber-optic cable plant - None
9. FOTS, including, but not limited to, additions, moves, and deletions of equipped circuits
10. SODN, including, but not limited to, additions, moves, and deletions of:

- a) CFPs
- b) User circuits

11. OTV, including, but not limited to, additions, moves, and deletions of:

- a) Monitors
- b) Keypads

12. T-carrier/SONET/IDNX, including, but not limited to, additions, moves, and deletions of circuits

13. ATM - None

16. BCDS, including, but not limited to, additions, moves, and deletions of drops
b. Non-critical and Non-Process-Sensitive

Note: Changes to non-critical and non-process-sensitive systems require NASA signature only when major modifications to the systems are being performed.

The following is a partial list of what is considered noncritical and non-process sensitive:

1. Point-to-point audio circuits
2. Point-to-point data circuits
3. Special audio (except for astro-comm)
4. Public Affairs Office (PAO) audio
5. PAO video (KSCTV)
6. Industrial Area television (IATV)
7. Fabrication of standard items such as:
 - a) Self-contained atmospheric protective ensemble (SCAPE) equipment
 - b) Headset cords and extenders
 - c) Miscellaneous cables
8. PM MWOs
9. VA MWOs
10. Inside fiber-optic and copper cable plants
11. Outside copper cable plant (except Range Safety and safing cables)

Integration -the addition of a hardware, firmware or software product to an existing system, subsystem, assembly or subassembly.

Launch Scrub - A failed launch attempt or launch delay, which occurs after the Range terminal count (launch minus 360 minutes) is initiated. The duration of the delay is not considered, one change of date is considered one scrub, regardless of the delay.

Launch Slip - A change in launch date, which occurs prior to the initiation of the Range terminal count.

Logistics - This definition contains typical functions associated with the provision of logistics support used to deliver services listed in the statement of work. These functions include:

- a) Logistics planning and analysis; integrated logistics support management
- b) Ordering, purchasing, tracking status, managing subcontracts for spares, supplies, materials and services
- c) Physical distribution of hardware, software, media, and firmware necessary to provide services.
- d) Electronic distribution of software.
- e) Shipping, receiving, and recovery services.
- f) Crating and packaging of material and supplies.
- g) Shipping prioritization.
- h) Provision of spares, consumables, test equipment, tools and fixtures.
- i) Property tagging and inspection of material and supplies from the point of demarcation and reception areas.
- j) Providing physical storage for materiel delivered under this contract.
- k) Inventory management.
- l) research and cataloging services and logistics information management

Long term data storage - Storage of data for greater than two years.

Lost service time - total time that customers requested and were granted but for which the service was not available

Maintenance - This definition contains typical functions required to accomplish the maintenance for the telecommunications and computing assets used to deliver the services in the statement of work. These functions include:

- a) Maintenance and calibration of ground systems to provide capabilities and performance in accordance with as-built documentation.
- b) Installation of approved changes and repairs into operational systems.
- c) Renewal and consolidation of equipment/software maintenance contracts and leases.
- d) Reconfiguration of ground systems and data to support on-going missions.
- e) Maintenance administration, including 3rd party contracts.

Maintenance administration - a function that encompasses the administration of ground systems maintenance by providing a central, "first line" point of contact for maintenance

problems. Maintenance administration is a function of the “maintenance” standard activity.

Network interface - the point of demarcation for outbound data (e.g., telemetry data) between a tracking complex and the NASA Integrated Services Network (NISN). Also the point of demarcation for inbound data (e.g., command data) between the user and the NISN.

NSAP 1/2 - the Network Service Assurance Plan 1/2 is a service provided to NISN by FTS2000.

On-Time Launch - A launch, which takes place within the established launch window on the date published on the Range schedule.

Operations Analysis - This definition contains typical functions associated with the assessment of the current performance of the ground systems and the impacts of additional loading to those services as listed in the statement of work. These functions include:

- a) End-to-end system performance monitoring, recommending appropriate changes to eliminate potential system bottlenecks and overloads; and short-term and long-term trend analysis.
- b) Risk analysis and management.
- c) Assessment of technical, schedule, and cost factors involved with the operation of systems.
- d) Analysis and evaluation of tracking resource, spacecraft, and telecommunications parameters and recommending ground system configurations to improve link margins.
- e) System operability and review of operation procedures, recommending or effecting changes to minimize data, voice, or video outages.

Operations Directive (OD) - The OD is prepared by 45 SW according to 45 SWI 99-101 and UDS Handbook and is the official support that will be provided the Range User to meet the requirements of the OR. The OD provides (1) a basis for test scheduling, (2) a commitment of Range support, (3) support operating instructions, and (4) a briefing document for supervisory persons.

Operations Directive Annex - The OD annex is prepared by the 45 SW and is the official 45 SW answer to the OR annex. The OD annex is a complete detailed description of the support that will be provided the Range User to meet the requirements in the OR annex.

Operations Requirements (OR) - The OR is prepared by the Range User as outlined in 45 SWI 99-101 and is a complete detailed description of the requirements necessary to accomplish a specific test or series of tests in the program described in the PRD. When support is required from another Range the appropriate number of copies is added to the distribution page of the OR by the Program Support Management Division.

Operations Requirements Annex - The OR annex is prepared by the Range User and is a complete detailed description of the requirements necessary to accomplish a subsystem test or a special minor test related to the overall test in the OR. Reference to the OR may be made in the annex. An annex may not refer to another annex. The OR annex may be submitted with the OR at any time subsequent to submission of the OR.

Operations Requirements Extract (ORE) - The ORE is prepared by the 45 SW and is a complete detailed description of the requirements in the OR to be supported by another national or service Range.

Out of Family – NASA signature required. Systems shown in this appendix are managed by a joint NASA and IDS communications TRP. In general, changes that affect the system baseline design and/or system architecture require NASA signature in the designated signature block located in Step 5 of the Work Plan and on MWOs, WORNs, etc. NASA has the option to indicate that they need no further involvement with the work paper (indicated in the Remarks field on the WOTRACK screen). An architecture change is the addition of new capability, change in system topology, system modification, or system software change. Changes in topology include first-time provision of a standard service to a facility.

The following is a list of systems and what constitutes an architecture or design change:

a. Operational intercommunications system - digital (OIS-D), including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Group processor assemblies
2. Central summing network
3. Technical control
4. Off network processor system
5. Record and playback system
6. Power distribution
7. Data transmission equipment

b. Operational Intercommunications system - Quintron (OIS-Q), including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Central equipment
2. T1/D4 interface module
3. Channel banks
4. System administration terminal equipment

c. NASA integrated services network (NISN)/voice and data management (VDMS), including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Transport management system equipment

2. Fiber multiplexer
3. Expansion shelves

d. Paging and area warning (P/AWS), including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Paging panels
2. Central matrix equipment
3. Tone generators and distribution amplifiers
4. Control trays
5. Mixers and power amplifiers used for area warning

e. Astro-comm, all changes affecting the system

f. Radio, including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Crane, crawler transporter, and convoy communications equipment
2. Transmitters, receivers, and comparators
3. Trunked equipment
4. Transportable communications system (TCS)
5. Transoceanic abort landing (TAL) equipment

g. Copper wideband transmission system, including, but not limited to, modifications of system equipment (Range Safety and safing cables)

h. Outside fiber-optic cable plant, new cable installations

i. Wideband fiber-optic transmission system (FOTS), including, but not limited to, additions, removals, and modifications of:

1. Chassis
2. Multiplexers
3. New dark fiber circuit activation

j. SODN, including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Routers
2. Bridges
3. Hubs
4. Switches

k. Operational television (OTV), including, but not limited to, additions, removals, and modifications (hardware and software) of:

1. Central equipment

- a) Video routing switcher
 - b) OTV system control units
 - c) Synchronizing generators and distribution
 - d) Video source synchronizers
 - e) Video test generators
 - f) Video measurement systems
 - g) Video recording systems
2. Cameras, pan and tilt
- l. Fiber data distribution interface (FDDI), including, but not limited to, additions, removals, and modifications (hardware and software) of:
- 1. System equipment
 - 2. New circuit activation
- m. T-carrier/synchronous optical network (SONET)/integrated digital network exchange (IDNX), including, but not limited to, additions, removals, and modifications (hardware and software) of system equipment
- n. Asynchronous transfer mode (ATM), including, but not limited to, additions, removals, and modifications (hardware and software) of:
- 1. System equipment
 - 2. New circuit activation
- o. BCDS, including, but not limited to, additions, removals, and modifications (hardware and software) of system equipment
- p. Photo-optical, including, but not limited to, additions, removals, and modifications (hardware and software) of system equipment
- q. Timing, including, but not limited to, additions, removals, and modifications (hardware and software) of system equipment

Note: All LSE tasks are NASA-managed activities and require NASA signature on work paper.

Performance Work Statement (PWS) - The performance-based description of tasks or services to be performed and/or end products to be delivered by the contractor. The PWS also defines facilities, property, and support to be provided to the contractor by the government.

Photo Acquisition Disposition Document (PADD) - A plan that is generated by the contractor for each operation or minor support test. The document identifies all requirements and provides internal instructions to other DOD technical multi-media support functional technicians on how to plan, meet, and execute support.

Plant Engineering and Operations - This definition contains typical functions associated with plant engineering and operations. These functions include:

- a) Maintenance and operations of plant equipment in support of scheduled activities.
- b) Sustaining engineering of plant equipment.

Proficiency - the percentage of scheduled service delivered to the user. Proficiency is measured as: $100 * (\text{scheduled service time in a reporting period} - \text{the time the scheduled service was not provided during a reporting period}) / (\text{service scheduled time during a reporting period})$. This equals the percentage of scheduled service delivered to the user during a reporting period.

Program Operating Plan (POP) – An annual plan developed by the government, which provides budget and workforce estimates, along with an outline of the work on which the estimates are based. Generally the plan covers the succeeding five years with the first year having a monthly cost phasing plan and the remaining four years having only annual estimates.

Program Introduction (PI) - The statement of estimated support requirements desired by the users to be provided by the Range.

Program Requirements Document (PRD) - The PRD is prepared by the Range user, according to 45 SWI 99-101, 45 SW Mission Program Documents, and/or is a combination of more than 90 standard forms common to all national and service ranges. The PRD is a detailed description of the requirements of the total program and is used for Range support planning.

Program Support Plan (PSP) - The PSP is prepared by the 45 SW according to the UDS Handbook, Document 501-89, and 45 SWI 99-101, and is the official answer to the PRD. The PSP outlines the planned support that will be provided the Range User to meet the requirements in the PRD.

Project Manager (PM) - The government technical representative having overall responsibility for budgeting for and funding contract support, defining technical requirements, identifying priorities, and providing this information to the contracting officer. The contractor's counterpart is responsible for the overall management and coordination of the contract and acts as the central point of contact for the government.

Property Administrator (PA) - An appointed representative of the Contracting Officer authorized to administer contract provisions pertaining to government property.

Property Control Program - The contractor's written policies and procedures for controlling each type of government asset in its possession in accordance with FAR Part 45 and the provisions of the contract.

Quality Assurance - A planned and systematic pattern of all actions necessary to provide confidence that adequate technical requirements are established; products and services conform to established technical requirements; and satisfactory performance is achieved.

Quality Assurance Evaluator (QAE) - A functionally qualified government person responsible for monitoring, evaluating, and reporting a contractor's performance on a specific contract requirement. This person is a designated representative of the FAC.

Quality Control (QC) - Those actions taken by a contractor to control the production of outputs to ensure that they conform to the contract requirements of timeliness, accuracy, appearance, completeness, consistency, and conformity to appropriate standards and specifications.

Range Users - Elements of the Department of Defense (DOD), other federal agencies, or civilian organizations authorized to use Range resources.

Requirements Document - a document that specifies the requirements that are to be met.

RFS - a Request for Service initiates the NISN to provide a service that was forecasted in the PSCRD.

Scheduling - This definition contains typical functions associated with the commitment of resources. These functions include:

- a) Scheduling of resources needed to provide a service.
- b) Providing notification to customers of service availability and providing resolution of any conflicts.
- c) Maintain schedule and resource utilization history databases.

Scheduling Efficiency - a metric for evaluating the generation and maintenance of conflict free schedules. Scheduling Efficiency is measured as $(\text{events scheduled}) / (\text{events requested}) * 100$. This equals the scheduling efficiency percentage for a reporting period.

Second level troubleshooting - problem isolation and resolution coordination of major problems (e.g., circuit, router, or server outage, email problem) with the proper maintenance agency

Service - the performance of all activities necessary to deliver customer products.

Standards and Limits - a file containing the upper and lower bounds of the system configuration and system performance parameters.

Standard of Excellence - The level of performance, which would be considered to fall in the "EXCELLENT" range for performance evaluation purposes (Of exceptional merit; exemplary performance in a timely, efficient and economical manner; very minor, if any, deficiencies with no adverse effect on overall performance.)

Statement of Capability (SC) - The 45 SW Commander's expression of capability for support of a new mission program. It provides estimated 45 SW support capability, the need for additional resources, cost of solutions to remedy deficiencies and other pertinent information in response to the PI.

Subsystem - a collection of hardware, software and procedures, which perform an identifiable task in support of one or more systems.

Support catalog - a database file containing all support products plus support schedules and sequence of events.

Support products - sets of data containing time-ordered parameters used to configure link equipment. These data sets consist of telemetry, radiometric, antenna pointing, and command parameters. Support products also include software support files containing project files, configuration files, site unique files, and equipment setup tables.

Surveillance Plan - The negotiated plan defining the process, reviews, and documentation used to monitor technical performance metrics and to report the cause, impact, and corrective action required to resolve variations from contracted technical performance.

Sustaining Engineering - the process whereby hardware and software capability is introduced into a system to restore the system to its as-built capabilities and performance. It includes the functions of product design, product fabrication or programming, product specification testing and acceptance, and product integration and test.

Sustaining Engineering Services- This definition contains typical functions associated with hardware, firmware, and software sustaining engineering for the telecommunications and computing assets used to deliver the services in the statement of work. Sustaining engineering encompasses those activities required to restore systems to their as-built capabilities and performance. These functions include:

- a) Plan, fabricate, develop, acquire, integrate, and modify hardware and/or software based on requirements changes, equipment obsolescence, and operational efficiency improvements.
- b) Adherence to standards, architecture, functional designs, and engineering processes.
- c) Configuration management of the system, including change requirements management and as built documentation (i.e. architecture baseline control).

Systems Engineering Services- This definition contains typical functions associated with the system engineering of individual ground systems within a mission, data, or center unique service. These functions include:

- a) Review customer requirements and augment existing ground system functional requirements.
- b) Propose modifications and/or enhancements to existing ground systems.

c) Develop and maintain functional designs of systems and subsystems

System maintainability - the implementation of a design, which improves the identification of a failure and eases the replacement of the faulty assembly.

System operability - the implementation of the human-machine interface, which minimizes operator errors and equipment setup time.

System restorability - the implementation of a design, which minimizes the time it takes to restore a system to an operational state after a failure.

Testing- the process by which the presence, quality, performance or genuineness is determined

Testing Services - This definition contains typical functions associated with hardware and software subsystem testing for the assets used to deliver the services in the statement of work. These functions include:

- a) Diagnostic testing.
- b) Verification and acceptance testing.
- c) Compatibility testing.
- d) Test planning, activities leading to the development of test plans, procedures, resource deployment, and execution of tests.
- e) Support validation testing and mission readiness testing.

Third level troubleshooting - problem resolution of major problems (e.g., circuit, router, or server outage, email problem) and documentation of results. The resolution may involve hardware or software redesigns.

Tool - hardware, firmware or software that serves as an aid to accomplishing a task.

Training - This definition contains typical functions associated with ensuring the preparation of personnel to perform the functions necessary to provide the services as listed in the statement of work. These functions include:

- a) Customer training on applications or services.
- b) Certification of personnel on operational consoles.
- c) Maintenance and operations training.
- d) Mission-specific training.

Universal Documentation System (UDS) - The Range Commanders' Council (RCC) Handbook 501-89 describes mandatory documentation to be used by the National Ranges and their users. The system provides a formal, common method of language and format for stating requirements and preparing support responses. The UDS encompasses documentation generated by user agencies, which state program, mission or test requirements and those response documents generated by the support agencies to define the support to be provided.

Validation testing - the testing of a newly developed or modified asset (system, subsystem, assembly, subassembly or lowest replaceable element), in an operational environment, to ensure that all requirements of the specification have been met.

Verification testing - the testing of a newly developed or modified asset (system, subsystem, assembly, subassembly or lowest replaceable element), in a non-operational environment, to ensure that all requirements of the specification have been met.

45th Space Wing (45SW) - The Air Force's 45th Space Wing is the DOD executive agent and single manager of Range facilities at Cape Canaveral Air Force Station, Patrick Air Force Base, and downrange stations. The 45th Space Wing's mission is to develop, operate and manage Eastern Range facilities and as host agency, provide support services to all launch/user activities.