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Prepared by:

Barbara Pfarr, NASA/GSFC

GOES-R Series , Program Systems Engineer

Date

Reviewed by:

Michael Donnelly, NASA/GSFC

GOES-R Series Flight Project Manager

Date

Vanessa Griffin, NOAA

GOES-R Series Ground Segment Project Manager

Date

Approved by:

Gregory Mandt, NOAA

GOES-R System Program Director

Date

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1.0 Introduction

The GOES-R Series Program Glossary is intended to provide a unified source of terminology and definitions that may be unique or uniquely-defined for this Program, including the GOES-R Ground Segment and Flight Projects.

When this Glossary is cited in Program or Project documentation as an Applicable document, the definitions herein take precedence over definitions for the same words in other dictionaries or sources.

2.0 Glossary List

Term	Definition
Abnormal Operation	Encompasses unforeseen circumstances that are not handled via established contingency plans and operational states such as anomalous conditions or failures.
Absolute Time Commands	Stored Commands that have a time tag containing an absolute spacecraft time.
Absolute Time Command Buffer	An allocated memory area used to store the absolute time commands.
Absolute Time Sequence	Sequence of commands executed at the absolute time tag associated with each command in the sequence.
Accepted Risk	A risk (an unplanned event) that is understood and agreed to by the program, organization partners, sponsors, stakeholders, and customer(s) sufficient to achieve the defined success criteria within the approved level of resources. A risk is accepted when its impact is deemed “acceptable” (does not drive a change to the baseline), and/or no additional resources are expended to mitigate the risk. In other words, it is decided that no further action will be taken to reduce the risk.
Acceptance Tests	Tests that establish the basis for delivery of an item under terms of a contract.
Access Point	The Ground Segment interface from which authorized users can request and access GOES-R products, data, and information.
Accuracy	Refers to the error in a measurement that is the difference between the measured and true value. It includes both systematic and random errors. Systematic errors must be estimated from an analysis of the experimental conditions and techniques. Random errors can be determined, and reduced, through repeated measurements under identical conditions and a Standard Deviation calculated. The magnitude of a random error is taken as three standard deviations (3σ).
Activation and Characterization Test (ACT)	The Activation and Characterization Test period is the phase of post-launch test consisting of functional verification of spacecraft and instrument operation.
Ad hoc request	In the context of a GOES product request, indicates a one-time request for a specific product(s). Not a product subscription.

Term	Definition
Advanced Baseline Imager (ABI)	A multi-spectral channel, two-axis scanning radiometer designed to provide variable area imagery and radiometric information of the Earth's surface as well as the capability for star sensing. The ABI measures emitted and solar reflected radiance simultaneously in all spectral channels. Data availability, radiometric quality, simultaneous data collection, coverage rates, scan flexibility, and minimizing data loss due to the sun, are prime capability requirements of the ABI system.
Affiliated Organization	Other Government agencies, other NOAA facilities, or research institutions that provide support (acquisition, design, development, financial resources, facilities, materials, procedures, equipment and personnel) to or are otherwise associated with the GOES-R Series Program, Flight or Ground Segment Projects, or contractors.
Algorithm Maturity	When expressed as a percentage (e.g., 80%, 100%), represents a metric of both the completeness of a data processing algorithm and the creator's confidence in the algorithm's ability to meet quality requirements for all expected input data.
Algorithm Theoretical Basis Document (ATBD)	A document delivered for each product generation algorithm that describes the algorithm such that it can be implemented and tested in the Ground System.
Ancillary data	Data from a source other than a GOES-R satellite required to perform an instrument's data processing
Anomaly	A discrepancy or deviation from the expected behavior. Anomalies can result from a variety of sources such as system faults, failures, incorrect configurations, unexpected events, and operator errors.
Applicable documents	Documents to be used as though they were included within the citing document.
Archive (Ground Segment)	Capability at a Data Center for maintaining a permanent electronic record of designated files, data, and documentation.
Assembly	An integrated set of components and/or subassemblies that comprise a defined part of a subsystem.
Attitude Knowledge	Attitude knowledge is the difference between the true attitude and estimated attitude.
Audit	A review of the Prime Contractor's, or subcontractor's documentation, software or hardware to verify that it complies with project requirements.
Authorized user	Users authorized to have access to GOES-R ground segment distribution function and associated products, data, and information.
Autonomy	The ability to implement an automatic pre-defined response to a stimulus and / or condition that results in a change of the operational mode and / or status of a piece of hardware and /or software independent of external intervention.
Availability	The probability that a system can provide functionality meeting requirements.
Availability, operational	See Operational Availability

Beginning of Life (BOL)	The point in the mission life just after the satellite achieves its mission orbit altitude, when operational resources and functions are at their maximum (e.g., full propellant load, all components operating at full specification, etc).
Baseline	A baseline is a reference point for measuring progress, and can be cost, schedule or technical (performance).
Body Reference Frame	Refer to the General Interface Requirements Document
Build	<p>A software engineering term, generally meaning all data files, libraries, reusable modules, compiled executables and engineered components that are required to implement one or more functions.</p> <p>For the Ground Segment, also used to refer to the integrated set of software components that will be installed and formally tested at an operational site.</p>
Bus	See Spacecraft Bus definition
The term “C or fraction of this term (e.g. C/2)	Describes the current for either charging or discharging a battery and is numerically equal to the rated capacity in ampere-hour (Ah). Therefore, to charge a manufacturer’s cell or battery rated at 20 Ah at C/2 would be to charge the cell or battery at a current of 10 A. “C” is also the rated capacity, in ampere-hours (Ah), obtained when a battery is discharged from a full state-of-charge (SOC), the Cell and Battery Manufacturer’s recommended end-of-charge voltage, to an average cell discharge voltage of 3.0V/Cell at a C/2 rate at 20°C. The actual measured capacity, “C”, will be greater than 20% of the manufacture’s nameplate capacity. All capacities will refer to rated capacity.
Calibration	The process to determine factors for converting and correcting raw detector measurements into science data units (e.g., radiance) with the specified level of accuracy.
Catastrophic	(1) A hazard that could result in a mishap causing fatal injury to personnel and/or loss of one or more major elements of the flight vehicle or ground facility. (2) A condition that may cause death or permanently disabling injury, major system or facility destruction on the ground, or loss of crew, major systems, or vehicle during the mission.
Cell Lot	Battery cells produced from the same batch of source materials used to build the cell plates.
Class I change	Proposed configuration change that is beyond the scope of the baseline
Class II change	Proposed configuration change that is within the scope of the baseline
Close Call	An event. An occurrence or a condition of employee concern in which there is no injury or only minor injury requiring first aid or no significant equipment/property damage/mission failure (less than \$1000), but which possesses a potential to cause a mishap.

Term	Definition
Closed Risk	Risk either fully mitigated or otherwise retired.
Cloud Cover Conditions Qualifier	Provides product specific limitations to the cloud cover associated with the threshold accuracy.
Collected Volatile Condensable Material	The quantity of outgassed matter from a test specimen that condenses on a collector maintained at a specific constant temperature for a specified time.
Co-registration	The process of maintaining the relative location with respect to the Earth reference grid of ABI pixels between various spectral channels.
Component	A functional unit viewed as an entity for purpose of analysis, development, production, testing, or record keeping.
Computer Software Configuration Item (CSCI)	A group of software treated as a single entity by a configuration management (CM) system.
Configuration	The functional and physical variable characteristics of a system and all its integral parts, assemblies and systems that make it capable of fulfilling functional and performance requirements.
Configuration Audit	The process of verifying that required Configuration Items (CIs) were produced, current versions of the CIs agree with specified requirements, technical documentation completely and accurately describes the CIs, and all approved change requests were implemented or otherwise resolved. It also includes procedural audits to ensure proper and accepted configuration management procedures are followed.
Configuration Baseline	Configuration of a product or service, formally established at a specific point in time, which serves as a reference for further activities.
Configuration Control	The systematic evaluation, coordination, approval or disapproval, and implementation of all proposed changes to a system configuration after formal establishment of its baseline(s).
Configuration Control Board (CCB)	The authority responsible for establishing baselines, evaluating and approving or disapproving proposed changes to established baselines and ensuring implementation of the approved changes to those baselines.
Configuration Change Request (CCR)	A documented request to issue, changes, revise, or delete a controlled item.
Configuration Documents	Documents that define requirements, design, build/production, validation, and interfaces of a product or service.
Controlled Document List (CDL)	An index of baseline documents that describe each system configuration.
Configuration Identification	The process of designating and documenting the characteristics of Configuration Items (CIs) in a system configuration.
Configuration Item (CI)	The smallest unit of hardware or software that is individually configuration controlled.

Term	Definition
Configuration Management (CM)	The process of identifying, controlling, and maintaining, and auditing status information on changes to configurations of documentation, hardware, software, firmware, and aggregate products throughout a system life cycle.
Configuration Status Accounting (CSA)	The recording and reporting of current configuration information, including CDLs, status of proposed changes, and implementation status of approved changes.
Contamination	The presence of materials of molecular or particulate nature, which impair or degrade the performance of hardware.
Contingency	Either a description of an activity, or a type of procedure or other documentation written to correct, and/or prevent, and/or mitigate a potential problem or an either a description of an activity, or a type of procedure or other documentation written to correct, and/or prevent, and/or mitigate a potential problem or an anomaly.
Continuity of Operations Deployment	Temporary relocation of operations and sustainment staff from the GS primary facility to the Remote Backup (RBU) for continuity of operations or as a training exercise.
Constellation	Grouping of GOES satellites in orbit
CONUS	Defined as a nadir-viewed rectangle 8.0215 x 4.8129 degrees, 5000 East/West x 3000 North/South kilometers, approximately in the geographic area of 10N-60N latitude and 60W-125W longitude.
Credible Failure	A condition that has a reasonable occurrence. For the purposes of this document, failures of structure, pressure vessels, and pressurized lines and fittings are not considered credible failure modes if those elements comply with the applicable requirements of this document.
Critical	A condition that may cause severe injury or occupational illness, or major property damage to facilities, systems, or flight hardware.
Critical (Ground Segment)	A designation that an item or its condition may impact ability of the mission to provide KPPs, risk the health & safety of the flight system, cause severe injury or occupational illness, or cause major property damage to facilities, systems, or flight hardware.
Critical Command	A command issued by the ground to the satellite producing changes in operational parameters that have the potential to adversely affect the health and safety of the satellite or result in irreversible changes to the operational state of the satellite.
Critical Life and Property products	Those ranked as Key Performance Parameters
Critical Structure Members	Structural members are classified as critical when their failure would result in loss of structural integrity of the flight units.
Critical telemetry	Telemetry points that are required to monitor the instrument in powered off state
Daily Operations	Recurring, nominal operations over a 24 hour period.

Term	Definition
Data (Ground Segment)	Numerical or other information represented in a form suitable for processing by computer.
Data Provenance	The process of tracing and recording the origins of data and its movement between databases. It contains the derivation history of data, beginning with its original sources. It includes elements such as who (person) or what (process) created the data, where it came from, how it was transformed, the assumptions made in generating it, and the processes used to modify it.
Depth of Discharge (DOD)	DOD is defined as the percentage of capacity discharged divided by the rated capacity. Therefore, a 60% DOD would be achieved by discharging 60 Ah from a battery with a rated capacity of 100 Ah.
Derating	The reduction of the applied load (or rating) of a device to improve reliability or to permit operation at high ambient temperatures.
Design Life	The minimum period of time during which the spacecraft must be capable of performing all mission operational requirements.
Design Qualification Tests	Tests intended to demonstrate that a test item will function within performance specifications under simulated conditions more severe than those expected from ground handling, installation, launch, ascent, and orbital operations. Their purpose is to uncover deficiencies in design and method of manufacture. They are not intended to exceed design safety margins or to introduce unrealistic modes of failure. The design qualification tests may be to either “prototype” or “protoflight” test levels.
Designated Representative	An individual (such as a plant representative), firm (such as assessment contractor), or other government representative identified and authorized by the government to perform a specific function for the government. As related to the contractor's effort this may include evaluation, assessment, design review, participation, and review/approval of certain documents or actions.
Destructive Physical Analysis (DPA)	An internal destructive examination of a finished part or device to assess design, workmanship, assembly, and any other processing associated with fabrication of the part.
Deviation	A known departure from requirements prior to any manufacturing or development taking place. Requires government approval.
Diagnostic Product	Any product that is output from the Level 1 processing of instrument data received from diagnostic data-producing instrument modes.
Directive	A policy, procedure and guideline, or instruction that has been approved and published by the appropriate authority. GPR 1410.1 addresses four types of directives, each of which serves a specific purpose.
Directive, Ground	An instruction to a component of a ground system, which is operator-defined and may be initiated in response to operator input or defined event criteria.
Discrepancy	See Nonconformance.
Disposal, satellite	The final phase of a satellite mission. At the end of its operational life, GOES satellites are raised 300 kilometers above synchronous altitude to allow another satellite to use the vacated orbital slot.

Term	Definition
East Geostationary Orbit location	75 degrees West Longitude.
Eclipse	Defined as when the solar disk is completely or partially occulted by the Earth or Moon as viewed from the spacecraft.
Electromagnetic Compatibility (EMC)	The condition that prevails when various electronic devices are performing their functions according to design in a common electromagnetic environment.
Electromagnetic Interference (EMI)	Electromagnetic energy which interrupts, obstructs, or otherwise degrades or limits the effective performance of electrical equipment.
Electromagnetic Susceptibility	The potential for an undesired response by a component, subsystem, or system to conducted or radiated electromagnetic emissions.
Element	A major grouping of Ground Segment functional capabilities, either Mission Management, Enterprise Management, Product Generation, or Product Distribution
Embedded software	A fixed set of digital instructions stored in a device, which is designed to remain unchanged during operations, also called firmware.
Emulated GVAR (eGVAR)	A unique GOES-R product generated only during the period of time when GOES-N/O/P operations overlap GOES-R operations. The product contains GOES-R data that is modified and formatted to be compatible with legacy GOES-N/O/P data systems.
End of Life (EOL)	The point in the mission life where resources required to maintain operational specification have been effectively exhausted (e.g. propellant remaining only for de-orbit, components degraded, etc).
End-Product	<p>A collection of one or more geophysical variables derived from remotely sensed data (products) that is uniformly packaged, processed and formatted and made available to a user with associated ancillary data.</p> <p>An end-product is a product with specific formatting as output by the Ground Segment. End-product is not interchangeable with product as specified in the Mission Requirements Document.</p>
End-to-End (E-T-E or ETE)	For an operational system, this includes data gathering by the satellite payload and on-board payload processing for downlink, data ingest and preparation, together with ground telemetry processing, product generation and distribution within stated latency and performance constraints. For a sub-system element such as an instrument, ground MM or PG, initiates at the receipt of data through its precedent interface, through completion at the element level to its delivery interface.
End-to-End Test	A Program-defined test that verifies the interoperability of the space segment-to-ground segment interface in a configuration as close to flight-like as possible.

Term	Definition
Engineering Data (ABI specific)	All data available on-board about health, safety, environment, or status of the spacecraft and instruments. <ul style="list-style-type: none">• Spacecraft Engineering Data – The subset of engineering data from spacecraft sensor measurements and on-board computations• Instrument Engineering Data – All non-science data provided by the instrument.
Engineering Review Board (ERB)	A group of Program and/or Project technical and management personnel convened to review all proposed changes to contract applicable documents per the GOES-R Configuration Management Plan (CMP).
Engineering Telemetry	The state of health, health and safety, housekeeping, and diagnostic data that are transmitted to the ground and used in the control, monitoring, and operation of the satellite.
Enterprise Management (EM)	Supports all operational functions by monitoring, assessing, and controlling the configuration of the operational systems, networks, and communications for the GOES-R ground segment. EM serves as the “glue” that links the MM, PG, and PD elements and provides for a degree of automated control. EM thus contributes to greater operational availability, efficiency, and safety of the GOES-R system.
Environmental Test Requirements	The environmental test requirements of GEVS generally start at the component or unit-level assembly and continue hardware/software build through the end-to-end system level. The assurance program includes the part level. Validation testing may also include testing at the assembly and subassembly levels of assembly; for test record keeping, these levels are combined into a “subassembly” level. The validation program continues through launch, and on-orbit performance.
Essential Loads	Power loads that are essential for safety and health of the space vehicle.
Event (Ground Segment)	An activity or asynchronous change of state, which fulfills a predetermined set of criteria.
Event (GLM)	A single sample exceeding the background threshold in a single frame. Event sources can include (but are not limited to) lightning, radiation, electronics noise, surface glint, and jitter.
Expected Value (or Expected Utility)	The product of two numbers, probability and impact (value or amount at stake other than a monetary value, i.e. utility).
Extendibility	The ability for a hardware or software system or component to accommodate modifications to increase its storage or functional capacity.
Extensibility	The ability of a hardware or software system to accommodate expanded capabilities without significant changes in design.
External Document	A document, such as a plan, specification, or standard that comes from an external source and is implemented by an organization as part of the QMS. Examples include military specifications and industry standards.
Extreme Ultraviolet Sensor (EUVS)	Provides information on the full solar EUV spectrum that is critical to understanding and modeling the thermosphere and ionosphere.

Term	Definition
Factory	A general term to refer to the contractor's development facility(s) or location(s).
Failure	See Nonconformance.
Failure Modes and Effects Analysis (FMEA)	A procedure by which each credible failure mode of each item from a low indenture level to the highest is analyzed to determine the effects on the system and to classify each potential failure mode in accordance with the severity of its effect.
Fault Management	Process of detecting and reacting to the occurrence of a fault or anomaly, whether in hardware or software.
Fault Tolerance	Built-in capability of a system to perform as intended in the presence of specified hardware or software failures.
Final Acceptance	The formal change of ownership from one organization to another.
Fixed Grid	A two-dimensional angular grid projected from the ideal location of a GOES spacecraft; used by the ground system to remap actual observations of the Earth onto a constant projection. See Image Navigation and Registration.
Flash (GLM)	A series of groups separated temporally by no more than a specified interval (typically 1 second) and spatially by no more than 1 ground sample distance (nominally 10km).
Flexible Image Transport System (FITS)	The standard data interchange and archive format of the astronomy community.
Flight Acceptance	See Acceptance Tests.
Flight Hardware	Hardware used, or to be used, operationally in space.
Flight Software	Software used or to be used operationally in space.
Frequency of Delivery	The frequency of data submissions will be identified by one of the following items: Weekly (W), Bi-weekly (BW), Off Bi-Weekly (OBW), Monthly (M), Bi-Monthly (BM), Quarterly (Q), Annually (A), As Required (AR), and As Generated (AG).
Full Disk	Defined as a 17.76-degree diameter circle centered at nadir, where 0.36 degree is added to the normal Earth diameter of 17.4 degrees for non-ideal orbital characteristics and anticipated image motion.
Full Operational Capability	Defines the event at which full availability requirements of both East and West operational stations are met exclusively with GOES-R series resources.
Fully Functional Configuration	Being able to collect the full complement of science data; determine instrument response changes; acquisition of sensor health and status data; generation of sensor, calibration, monitoring, health and status data streams; and reception and execution of command and control data.
Functional Tests	The operation of a unit in accordance with a defined operational procedure to determine whether performance is within the specified requirements.

Term	Definition
Geometric Calibration	The process of locating instrument observed data to a reference frame (e.g., Earth, solar, inertial).
Goddard Policy Directive (GPD)	A policy statement that describes what is required by GSFC management for achieving NASA's vision and mission.
Goddard Procedural Requirements (GPR)	A statement of specific, detailed procedures for implementing NASA and Goddard policies.
GOES EAST / GOES-EAST	GOES-EAST/WEST is the name given to whichever GOES satellite is currently located in the East/West Geostationary Orbit and processing operational data. This distinguishes them from the retired or spare GOES satellites.
GOES WEST / GOES-WEST	GOES-EAST/WEST is the name given to whichever GOES satellite is currently located in the East/West Geostationary Orbit and processing operational data. This distinguishes them from the retired or spare GOES satellites.
GOES-R Access Point	The Ground Segment interface from which authorized users can request and access GOES-R products, data, and information.
GOES Rebroadcast (GRB)	The relay of selected GOES-R data products through the satellite. This term is often used to refer to the product set being rebroadcast.
GOES Variable (GVAR)	The service for rebroadcasting GOES I-P data.
Government	In the context of personnel, includes Government personnel and designated Government support contractor personnel
Ground Data Latency	A product-dependent value that is defined as the time from the receipt of the last raw data packet on the ground through the time that the data are converted to a specified GOES-R product and delivered to the specified destination.
Ground Latency, OSD-Allocated	Sum of (1) the Baseline maximum time allocated between the receiving of the data in the last packet of the observation at the RF input to the antenna and the intermediate frequency conversion and (2) the Baseline maximum time between the intermediate frequency on the transmit side of the GRB transmitter on the ground at CDAS and the intermediate frequency on the received side of the GRB transmitter on the ground at NSOF.
Ground Latency, OSDPD-Allocated	Baseline maximum time allocated between the arrival of the last data packet of an observation at the ingest point of the OSDPD GOES-R Processing subsystem and the arrival of the last processed data from an observation at the GOES-R Access Point.
Ground Segment	That part of the GOES-R System that includes the ground-based satellite operations and data capture, processing, and distribution elements. The main functional elements include Mission Management, Enterprise Management, Product Generation, and Product Distribution.
Group (GLM)	A series of lightning events (since the non-lightning events will have been filtered out before grouping) occurring at the same time (i.e. within an integration period) and in adjacent pixels
Guidance Navigation and Control (GN&C)	Comprises the disciplines of attitude determination and control, orbit determination, propulsion, and flight dynamics.

Term	Definition
Handover	The formal change of responsibility from one organization to another.
Hardware	As used in this document, there are two major categories of hardware as follows: a) Prototype Hardware: Hardware of a new design; it is subject to a design qualification test program; it is not intended for flight. b) Flight Hardware: Hardware to be used operationally in space. 1) Protoflight Hardware: Flight hardware of a new design; it is subject to a qualification test program that combines elements of prototype and flight acceptance validation; that is, the application of design qualification test levels and duration of flight acceptance tests. 2) Follow-On Hardware: Flight hardware built in accordance with a design that has been qualified either as prototype or as protoflight hardware; follow-on hardware is subject to a flight acceptance test program. 3) Spare Hardware: Hardware the design of which has been proven in a design qualification test program; it is subject to a flight acceptance test program and is used to replace flight hardware that is no longer acceptable for flight.
Hazardous Command	A command whose execution (including inadvertent, out-of-sequence, or incorrectly executed) could lead to an identified critical or catastrophic hazard, or a command whose execution can lead to a reduction in the control of a hazard (including reduction in failure tolerance against a hazard or the elimination of an inhibit against a hazard).
Heartbeat	A message sent by client software to its server indicating an online status
High fidelity simulation	Recreating a functional element's capability in such a way as to be nearly indistinguishable from the physical reality; very faithful to the original.
Housekeeping	The set of activities or resources periodically invoked to maintain the satellite within mission-acceptable parameters and in a condition to provide full mission objectives.
Housekeeping Telemetry	Data required to monitor instrument and/or observatory operation, health, and safety
Image Navigation and Registration (INR)	A set of image quality metrics pertaining to the location errors of Earth-referenced instrument pixels in Level-1b data. Navigation is absolute pixel location accuracy, and the various registration requirements specify relative pixel location accuracy. Within-frame registration and line-to-line registration are relative pixel-to-pixel location errors within a single frame. These errors result in image distortion and shear within a single image. Frame-to-frame registration is the relative motion of a given pixel in sequential frames. This error produces jumps when successive images are looped. Channel-to-channel registration is the offset between spectral channels for a given pixel location. These errors affect multi-spectral products derived from raw imagery.

Term	Definition
Independent Inhibit	Two or more inhibits are independent if no single credible failure, event or environment can eliminate more than one inhibit.
Independent Verification and Validation	A system analysis, test, and evaluation effort that is conducted by an entity independent of the development organization or the customer organization.
Information rate	The rate of earth observation data prior to coding or other overhead that contributes to the total transmission rate.
Inhibit (Space Segment)	A design feature that provides a physical interruption between a stimulus and a function.
Initial Operational Capability (IOC)	The event when the first GOES-R series mission has satisfactorily completed flight testing, and the complete flight and ground system has been verified as meeting all functional, performance, and availability requirements for a complete set of instruments at either the East or West operational stations.
Initial Risk List	An initial set of risks identified by GOES-R Series Program. These risks will be identified through brainstorming sessions and interviews conducted by the Risk Management Coordinator with the Program team, and will include preliminary analysis of Program schedules, technical performance, budgets, and resource allocations.
Inspection	The process of measuring, examining, gauging, or otherwise comparing an article or service with specified requirements.
Instrument	For GOES-R the instruments are: ABI, EXIS, GLM, Magnetometer, SEISS, and SUVI.
Instrument data	Data output from an instrument which consists of raw science data, instrument engineering telemetry, and associated spacecraft telemetry.
Instrument Unit	Means the sensor unit, electronics box (if applicable), or other units of the instrument.
Interface Control Document (ICD)	A specification of the mechanical, thermal, electrical, power, command, data, communications and other interfaces that system elements must meet.
Interoperable	A characteristic of multiple systems that work together or communicate seamlessly.
Joint Risks	Risks related to the GOES-R Series Program, contractors, or affiliated organizations collectively involving coordinated risk handling/action. These risks may include risks crossing all segments or risk impacting multiple risk areas.
Key Performance Parameters (KPPs)	The minimum mission subset of products identified as critical to the protection of life and property. For GOES-R, the KPPs are cloud and moisture imagery.
Landmark	A geographical feature, such as a segment of coastline, identified in image data (at one or more spectral bands) and used to locate instrument reference frame data on the Earth reference grid.

Term	Definition
Latency, Ground Data	See Ground Latency.
Launch	The period of time between lift off and the separation of the GOES-R Series satellite from the launch vehicle.
Launch and Orbit Raising (LOR)	The launch and orbit raising (if needed) phase consists of the launch, transfer orbit operations, orbital maneuvers to the checkout station, appendage deployments, and spacecraft functional checkout. During the spacecraft functional checkout, spacecraft contractor engineers and operators complete checkout of the communication payload and those spacecraft subsystems, including redundant functions, which are going to be needed for payload tests. This phase begins at day L-1 and continues until the contractor performs an engineering handover to NASA. Launch vehicle/services will be provided by government.
Level 0	Reconstructed unprocessed instrument data at full resolution; any and all communications artifacts (e.g. synchronization frames, communications headers) removed.
Level 1a data	Level 0 data with all supplemental information appended for use in subsequent processing.
Level 1b data	Level 0 data with radiometric and geometric correction applied to produce parameters in physical units.
Level 2 data	Derived environmental variables (e.g., sea surface temperature) at a comparable temporal and spatial resolution to the Level 1 source.
Level 2+ data	All level 2 and higher products.
Level 3 data	Data or retrieved environmental variables which have been spatially and/or temporally resampled (i.e. derived from Level 1 or 2). Such resampling may include averaging and/or compositing.
Level 4 data	Model output or results from analyses of lower level data (i.e., data that aren't directly measured by the instruments, but are derived from these measurements).

Term	Definition
Level of Assembly (Space Segment)	<p>The environmental test requirements of GEVS generally start at the component or unit-level assembly and continue hardware/software build through the system level (referred to in GEVS as the payload or spacecraft level). The assurance program includes the part level. Validation testing may also include testing at the assembly and subassembly levels of assembly; for test record keeping these levels are combined into a “subassembly” level. The validation program continues through launch, and on-orbit performance. The following levels of assembly are also used for describing test and analysis configurations:</p> <ul style="list-style-type: none"> • Part: A hardware element that is not normally subject to further subdivision or disassembly without destruction of design use. Examples include resistor, integrated circuit, relay, connector, bolt, and gaskets. • Subassembly: A subdivision of an assembly. Examples are wire harness and loaded printed circuit boards. • Assembly: A functional subdivision of a component consisting of parts or subassemblies that perform functions necessary for the operation of the component as a whole. Examples are a power amplifier and gyroscope. • Component or unit: A functional subdivision of a subsystem and generally a self contained combination of items performing a function necessary for the subsystem’s operation. Examples are electronic box, transmitter, gyro package, actuator, motor, battery. For the purposes of this document, “component” and “unit” are used interchangeably. • Subsystem: A functional subdivision of a system consisting of two or more components. Examples are structural, attitude control, electrical power, and communication subsystems. Also included as subsystems of the payload are the science instruments or experiments.
Level of Assembly (Ground Segment)	<p>A term that refers to a level of Ground Segment decomposition or integration. The order of the levels is as follows:</p> <p>GOES-R System <> Ground Segment <> Element <> Subsystem <> Component</p>
Limit Loads	<p>Defined as all worst case load conditions including temperature effects from the environments expected during all phases of the structure's service life including manufacturing, ground handling, transportation, environmental testing, integration, pre-launch, launch and on-orbit operations and storage.</p>
Limited Life Items	<p>Hardware:</p> <ul style="list-style-type: none"> • That has an expected failure-free life that is less than the projected mission life, when considering cumulative development, operations and storage. • Limited shelf life material used to fabricate hardware.
Local Zenith Angle	<p>The angle between the local vertical and the line-of- sight of the spacecraft.</p>
Magnetometer Instrument	<p>Consists of an electronics unit and boom mounted tri-axial magnetic sensors.</p>

Term	Definition
Maintenance Levels	<p>First Level - Routine and recurring maintenance by Government and on-site support contractors.</p> <p>Second Level - First attempt at repair or replacement of a failed component (e.g., board swap or unit replacement) by Government and on-site support contractors.</p> <p>Third Level - Maintenance support from specialized vendors to supplement on-site Government and support contractors. Usually through contracts with associated response times.</p>
Manifest	<p>In the context of the Ground Segment interface to CLASS, an XML-format file that contains a list of the GOES-R products currently available for delivery to CLASS and is sent to initiate the archive delivery process.</p>
Manifest (Ground Segment)	<p>In the context of the Ground Segment interface to the Archive, a file that contains a list of the GOES-R products available for delivery to Archive, which is sent to initiate the archive delivery process.</p>
Margin	<p>The amount by which a capability exceeds mission requirements, as defined by: $Margin\% = [(Available\ Resource - Current\ Best\ Estimate) / (Available\ Resource)] \times 100\%$</p>
Marginal	<p>Minor injury/illness and/or minor equipment damage resulting in limited delay of mission.</p>
Material	<p>Substances including hardware, software and data that wholly or partially comprise a system, subsystem, component, or assembly.</p>
Material/Failure Review Board (MRB)	<p>The formal Contractor board established for the purpose of reviewing, evaluating, and disposing of specific nonconforming materials, supplies or services, and for ensuring the implementation and accomplishment of corrective action to preclude recurrence.</p>
Mean Time Between Failure (MRD)	<p>The average time that a system/component works without a failure.</p>
Mean Time to Failure	<p>The expected time that a system/component will operate before the first failure will occur.</p>
Mean Time to Repair	<p>The average time required to repair a system/component.</p>
Maximum Time To Restore Services	<p>The specified time required to restore services of a system or component.</p>
Measurement Resolution	<p>Resolution of the A/D converter.</p>
Mesoscale (MESO)	<p>Defined as the equivalent of a 1.6043 x 1.6043 degree, 1000 x 1000 km nadir viewed area.</p>
Metadata	<p>Information about data. An information file that exists to provide supplementary details about a data product. Metadata specifications are tailored to the needs and content of the product file. Metadata may include items such as product quality flag, data time span, algorithm version used for creation, ancillary file name(s), etc.</p>

Term	Definition
Metric	A defined variable or set of variables, that uses collected measurements and information to describe the performance of a unit, subsystem, or a system.
Mission	The full life cycle development and operation of a particular satellite. The Mission Phases are: Pre-launch, Launch and Orbit Raising, Post-Launch Test, Operations, Storage, and Disposal.
Mission Allowable Temperature (MAT)	The established range of temperatures that units are permitted to experience while operating and non-operating in orbit. Mission allowable temperatures are established based upon analytical temperature predictions and upon the temperature range over which the hardware can operate. MAT encompasses worst case operating and non-operating temperature predictions, uncertainty, and any contractor desired temperature margin.
Mission availability	The probability that the entire GOES-R series system can be successfully used for its specified mission over the stated period of time.
Mission Critical (Ground Segment)	Having the potential to adversely affect either the health and safety of a flight system resource or the capability of the end-to-end GOES-R System to provide KPP product data. Components or functions designated as “mission critical” may include hardware, software, and procedural components and functions in either flight or ground systems.
Mission Critical (Space Segment)	Hardware or software whose loss could affect the health and safety of the personnel, the satellite vehicle in flight, or the launch vehicle during launch.
Mission Critical Events	Critical events are the events in a mission that must occur in sequence to achieve overall mission success. If the event is not executed properly and without anomaly, it could result in failure to accomplish the mission. Examples of critical events include orbit raising, station keeping and appendage deployment.
Mission Management (MM)	Includes satellite mission scheduling, operations, state-of-health trending, orbital analysis, data acquisition, and ground operations.
Mission Operations	Activities including real-time console operations, offline engineering and trending, bus and instrument health and safety and performance monitoring, anomaly detection and resolution, procedure development, spacecraft resource accounting, and special operations planning and execution.
Mission Operations Support Team (MOST)	A team formed by the Program Office to focus on mission operations, from pre-launch planning and development, through launch and orbit raising, post-launch test, and transition to sustaining operations. The MOST includes personnel from both the Flight and Ground Segment Projects, including discipline engineers (spacecraft bus and instrument), systems engineers, flight and ground controllers, mission planners and schedulers, ground systems engineers, software maintenance, and associated support personnel. Membership will include Flight and Ground Segment contractor personnel, depending on mission phase. A key feature of the GOES-R MOST will be early involvement of several NOAA operations staff dedicated to GOES-R mission operations in the early stages of pre-launch development. The MOST will be lead by the GOES-R Mission Operations Manager.

Term	Definition
Mission Readiness Test	Any of the series of tests performed prior to satellite launch, to verify and validate the connectivity and communications between the ground segment and the various external entities that will provide launch and early orbit operations support (e.g., launch site tracking stations). Tests usually performed near to launch time when such interfaces are configured and available for testing.
Mode	Manner of operation, use or existence of a system.
Monitor	To track or witness the progress of an activity.
Near-real time	The designation applied to the propagation of data through a system with time delays that do not adversely impact the system and are compatible with operational requirements.
Negligible	Injury requiring minor first aid and/or minor system damage.
Nesting (commands)	A method of command sequence or procedure (PROC) organization by which a set of commands is established as subordinate to a “parent” command, and all subordinate commands execute prior to the next “parent” command in the sequence or PROC. Subordinate commands can, themselves, be “parents” to other groupings of subordinate commands, which is referred to as “nesting.”
Network Common Data Form (NetCDF)	Network Common Data Form - A machine-independent self-describing file format for scientific data.
Nonconformance	A condition of any hardware, software, material, or service in which one or more characteristics do not meet requirements.
Nonconformance, minor	A nonconformance that is not likely to materially reduce the usability of the supplies or services for their intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the supplies or services.
Non-critical telemetry	Telemetry points that are required to monitor the instrument in powered on state.
Non-Essential Loads	Power loads that can be powered off without adversely affecting the minimum controllability and commandability of the spacecraft.
Non-interference basis	No interference causing loss of data or reduction in data quality occurs between affected systems.
Non-operational Temperatures (NOT)	The established range of temperatures that components are permitted to experience while dormant, not operating and not powered. NOT temperatures represent the permissible range while the hardware is off. During flight, survival heaters maintain hardware at or above the cold NOT limit and passive design maintains hardware below the upper NOT limit. It is also known as non-operating MAT.
Normal Operation	Operational states of the spacecraft that exist or occur by design, according to the expectation of the mission designers and planners.
Notifications	Unsolicited communications from the Ground Segment to Users. These messages may be communicated using a variety of communication methods.

Term	Definition
Off-gassing	The emanation of volatile matter of any kind from materials into a manned pressurized volume.
Off-line development	The build-up and testing of components for an operational system without interference with the operational system.
On-orbit check-out location	90 degrees West Longitude
On-orbit storage location	105 degrees West Longitude
Open	An attribute of a hardware or software system's design such that it employs modular design tenets and uses widely supported, consensus-based, and non-proprietary standards for its key interfaces, operating systems, data formats, and languages.
Operational	A status designation that indicates readiness, capability, and authorization to support or conduct mission operations. Also a descriptive term to refer to something in an operations-like state or configuration.
Operational Activation	Activation of a satellite from a non-operational state (e.g., storage) to a state that is able to perform full mission operations.
Operational Availability	Steady-state availability through the GOES-R series operational lifetime, averaged over 30 days, including the GOES-R facilities and networks (to the extent of the demarcations defined in the applicable IRDs).
Operational Lifetime	GOES-R series operational lifetime begins immediately after instrument check-out of the first satellite on-orbit and extends through the operational usage of a GOES-R series satellite (providing at least partial CONUS coverage) (TBR) while meeting the mission availability requirements.
Operational Loads	The expected on-orbit structural loads
Operations	See Mission Operations
Operations Concept	A concept that defines how the GOES-R system will be verified, launched, commissioned, operated, and disposed. Defines how the design is used to meet the requirements. If separate concepts for maintenance and testing are not provided, then these items are also included in the operations concept.
Operator	Authorized and certified personnel who operate the Ground Segment according to their operator role and privileges (e.g., flight and ground controller, mission planners and scheduler, ground systems engineer).
Orbit Reference Frame	Refer to the General Interface Requirements Document (GIRD).
Organization Head	The head of any organization needing to establish configuration management procedures. Examples include project managers, project scientists, branch heads, Directors of, etc.
Outgassing	The emanation of volatile materials resulting in a mass loss and/or material condensation on nearby surfaces.

Term	Definition
Part	The lowest level of separately identifiable items.
Payload	An instrument or communications component mounted on the spacecraft that provides measurement data or communications service to fulfill mission goals.
Phase	Stage in the life cycle of a mission.
Pilot signal	In the context of the Data Collection System, a continuous UHF signal to both the GOES-East and -West spacecraft, used to compensate for frequency drift in the spacecraft DCS transponder and to adjust the overall system gain by employing phase-lock loop technique.
Portal	A virtual environment that provides organized capabilities to its users and a pathway to other content.
Post-Launch Test (PLT)	Refers to a test phase, which begins immediately after LOR and acquisition of the desired checkout orbital location with the execution of a pre-defined series of spacecraft and instrument test plans. These test sequences are designed to verify compliance with all space and ground segment mission requirements. The PLT phase consists of two distinct periods; Activation and Characterization Test (ACT) and Systems Performance and Operations Test (SPOT).
Pre-Launch (PREL)	The pre-launch phase provides for the design, construction, integration, and testing of each spacecraft, satellite integration and test, shipment to the launch site, as well as launch site activities. This phase also includes the development, installation, and testing of any associated ground equipment software, and facilities required during all subsequent mission phases. This phase begins at spacecraft contract award and continues until one day before launch (L-1 day).
Primary instruments	All the ABI instruments
Prime Contractor	The contractor under direct government contract, usually for a large project.
Procedures and Guidelines	A documented description of how a Goddard organization will perform its own activities.
Product	Derived data from the raw instrument measurements in a specific output format. Products may be classified as Level 0, Level 1, and Level 2+ depending on their degree of processing.
Product Baseline	Indicates product or product parameters that are part of the base contract.
Product Development Lead (PDL)	The leader of the contractor and/or civil servant team responsible for the development of a GOES-R product as part of the Flight Project or Ground Segment Project. Responsible for assigning risks to team members, including study and development contractors, and also verifying that new risks submitted to the team have been routed correctly and vetted through the risk management process described in the Risk Management Plan.
Product Distribution (PD)	Includes distribution of Level 1b, Level 2+, and derived products to user portals while addressing interfaces with the user for accessing GOES data. The primary user portals include the GOES-R satellite series (e.g., for uplink of Global Re-Broadcast (GRB)) NOAA's National Weather Service (NWS).

Term	Definition
Product Extent Qualifier	Provides product specific limitations to the solar zenith angle coverage of the products over which a product can be computed. The use of the term quantitative in any of the product extent qualifiers defines the generation of the product while meeting the threshold product measurement accuracy performance in that region, whereas the use of qualitative in any of the product extent qualifiers defines the generation of the product without meeting the threshold product measurement accuracy performance requirements. For CONUS (3000 km x 5000 km) products and mesoscale (1000 km x 1000 km) products, the product will be computed within the CONUS-sized measurement area and the mesoscale-sized measurement area that falls within the product qualifier limitations.
Product Generation (PG)	Includes algorithm support, processed raw data, processing to Level 1b (including calibration, navigation and registration), generation of the data for rebroadcast and for higher level data creation including operational derived products. The government will provide the necessary science algorithms for the generation of user products.
Product Geographic Coverage / Conditions	The size of the area that must be observed in the revisit time in order to complete the product; in the case of CONUS, it also specifies a particular area as well as location. The GOES-R products will be calculated for the coverage areas of the L1b data provided by the instrument, subject to the Product Qualifiers.
Product Horizontal/Angular Resolution	Product Horizontal/Angular Resolution is defined for the Space and Solar Products only and is nominally the equivalent of the Product Horizontal Resolution.
Product Horizontal Resolution	The finest horizontal spatial element of the product measured at nadir. The GOES-R System will not spatially degrade the product horizontal resolution beyond that of the L1b data of the earth-looking instruments when making Level 2 and higher products, except in the generation of GOES-R products with coarser horizontal resolution.
Product Long-Term Stability	The deviation in accuracy over a period of time, typically the lifetime of the mission, unless otherwise specified in the product long-term stability values.
Product Mapping Accuracy (Product Navigation)	The accuracy of the registration of the collected data to the appropriate Earth or other reference frame. The GOES-R System will geolocate the GOES-R series L1b data (which meets instrument image navigation and registration requirement for earth-looking instruments) to comply with the product mapping accuracy requirements.
Product Measurement Accuracy	The accuracy of the product, namely the absolute difference between the sufficiently-sampled mean product value (taken over a sufficiently large data set of comparable conditions so that the uncertainty in the determination of the mean is smaller than the product measurement accuracy) and the corresponding value of the absolute standard. For products that are classified into levels for accuracy levels, the accuracy is clarified per product and is often a probability of correct classification.

Term	Definition
Product Measurement Precision	The one-sigma standard deviation of the distribution of the determined values over a sufficiently large number of determinations so that the uncertainty in the determination is smaller than the standard deviation (unless otherwise noted in each product precision). For products that are classified into levels for precision, the precision is clarified per product and is often a probability of correct classification.
Product Measurement Range	The range from the minimum to the maximum values over which the product will be measured.
Product Option	Indicates product or product parameters that are part of the contract options.
Product Orthogonality / Coverage	(Space and Solar Products only) The equivalent of the Product Geographic Coverage.
Product Pointing Knowledge / Mapping Uncertainty	(Space and Solar Products only) The knowledge of the line of sight of the space and solar instruments.
Product Pointing/ Mapping Accuracy	(Space and Solar Products only) The equivalent of Product Mapping Accuracy.
Product Refresh Rate/Coverage Time	The time between the completion of the nth update of the product and the completion of the (n+1)th update of the same product. The GOES-R baseline product tables list refresh times for products. However, ABI data may be produced more frequently than the listed times, particularly due to the different scan modes of ABI. Products that rely on surface observations with product refreshes that are long, compared to the instrument image refresh times, benefit from observations without obscurations caused by clouds.
Product Reproducibility	The degree to which the information is replicated, subject to an acceptable degree of imprecision as defined in the GS F&PS
Product Set #	Subset of the total GOES-R products, indicating which products are required for implementation at certain delivery milestones.
Product Statistics Qualifier	Provides product specific limitations, where applicable, to the product generation scene statistics under which the product measurement accuracies apply.
Product Vertical Resolution	Defined as layering averaging of the resultant samples corresponding to different heights in the atmosphere; where only one vertical sample is collected, no layer averaging is needed. The GOES-R System will produce the required vertical layering of the GOES-R products employing external data sources if needed. For typical imaging products, the vertical layering is typically over the total column.
Program Material Review Board	The formal Contractor board established for the purpose of reviewing, evaluating, and disposing of specific nonconforming materials, supplies or services, and for ensuring the implementation and accomplishment of corrective action to preclude recurrence.
Protoflight Testing	See Hardware.
Prototype Testing	See Hardware.

Term	Definition
Proxy data	Customized test input and output data files, developed from real data and modified to represent input for a specific product generation algorithm.
Pseudo-telemetry	New telemetry point(s) that are generated/derived on the ground by combining or manipulating (through the use of mathematical instruction) one or more satellite telemetry points. These are created for ease of trending and analysis.
Pull	Mode for data access in response to a user request where a user (or user environment, if automated) is notified of availability of data for pickup from a specific distribution server. Once notified, the user (or user environment) initiates the transfer of the data from a distribution server
Push	Mode for data access in compliance with a pre-established user agreement where a distribution server automatically sends data to a user environment without prior notification to the user.
Qualification	See Design Qualification Tests.
Qualitative Risk Analysis	A subjective assessment of risks to determine: which risk events warrant a response; the probability and impact of all risks; the probability of each risk occurring based on past experience; the impact of each risk; which risks to analyze more fully using quantification; and the overall risk ranking for the program.
Quantitative Risk Analysis	<p>A numerical analysis of the probability and consequences (amount at stake or impacts) of the highest risks on the program.</p> <p>Risk quantification involves the following activities:</p> <ul style="list-style-type: none">• Further investigation into the highest risks on the program• Determination of the type of probability distribution that will be used – e.g., triangular, normal, beta, uniform, or log normal distribution.• Interviewing experts (data elicitation)• Sensitivity analysis – determine which risks have the most impact on the program• Monte Carlo analysis (computer based simulation)• Decision Tree analysis
Radiometric Calibration	The process of converting and correcting raw detector measurements (counts) into science data units (e.g. radiance) with the correct scale factors and the specified level of accuracy.
Random errors	Unrepeatable statistical fluctuations in the measured data due to the precision limitations of the measurement.
Raw Data	Data in CCSDS transfer frame packets, as received from a satellite.
Real-time	The designation applied to the propagation of data through a system with minimum, deterministic, time delays.

Term	Definition
Recapitalization	<p>The rebuild and selected upgrade of currently fielded systems to ensure operational readiness</p> <ul style="list-style-type: none"> • Rebuild - Restores system to a like-new condition in appearance, performance, and life expectancy; inserts new technology to improve reliability and maintainability • Selected Upgrade - Adds capability improvements to address capability shortcomings.
Red Limit	The value of a telemetry point requiring action when the point is either greater than or less than, depending on the point monitored the stored limit value.
Redundancy	The use of more than one independent means of accomplishing a given function.
Redundant Structural Members	Structural members are classified as redundant when their failure would result in the redistribution of applied loads to other structural members without loss of structural integrity.
Reference	Information that is non-binding on the contractor
Relative Time Command (RTC)	A command for which its execution time is specified as a time interval after a preceding command.
Relative Time Command Sequence (RTCS)	A named sequence of Relative Timed Commands, which perform a specific function.
Relative Time Sequence (RTS)	See Relative Time Command Sequence
Relative Time Sequence Buffer (RTSB)	An allocated memory area used to store the named Relative Command Sequences.
Relative Time Sequences Command (RTSC)	Sequences of commands that can be sent from the on-board processor following a pre-defined sequence with execution times relative when the previous command in the sequence was issued.
Release (Ground Segment)	A defined Ground Segment capability level, installed and verified at its operational site(s) that is associated with a specific milestone or date. Each release augments the capabilities of previous releases.
Reliability Event	An instance that causes the lowering of the segment's or system's reliability.
Remote (Ground Segment)	Regarding the Ground Segment, indicates a location or connection that is external to the distributed Ground Segment.
Repair	A corrective maintenance action performed as a result of a failure so as to restore an item to operate within specified limits.
Requirement	A statement of a function to be performed, a performance level to be achieved, or an interface to be met.
Requirements Management	A systematic process for establishing and maintaining control and evaluation of all GOES-R requirements.
Residual Risk	The element of a risk remaining after a risk has been mitigated.

Term	Definition
Resolution	Ability to distinguish two adjacent features in the spectral, spatial or temporal domain.
Resource Tracking	The activity of tracking and maintaining technical resource allocations, estimates, and margins for system elements. Technical resources include mass, power, volume, area, pointing accuracy and knowledge, link margin, computers, communications, data bases and others.
Review	A formal or informal presentation of material with a defined agenda, objective, participants, and success criteria.
Review documents	Documents in this category shall be received by the GOES R Project within the time period specified, and will be subject to evaluation. These documents shall be implemented upon issuance unless otherwise noted. However, when an evaluation reveals inadequacies in a document, the Contractor shall correct the document as required.
Rework	Return for completion of operations (complete to drawing). The article shall be reprocessed to conform to the original specifications or drawings.
Risk	The combination of the likelihood that a program will experience an uncertain event and the consequence of the event, were it to occur. Note: Positive-outcome events and/or extremely low probability/impact-outcome events can similarly be considered. Any circumstance or situation that impacts; public safety, program controlled cost; program controlled schedule; or major mission objectives, and for which an acceptable resolution is deemed unlikely without focused management effort.
Risk Action Plan (Risk Mitigation Plan)	A formal plan to determine the action needed to address a risk. In the GOES-R Series Program Risk Management database, each action plan will be entered as a data item.
Risk Analysis	The activity of identifying risks or adverse events, and the analysis of the probability of occurrence and the consequence of occurrence of these events.
Risk Categories	Sometimes referred to as sources of risk or common categories of risks experienced by an organization or program. The categories help analyze and identify risks on each program. Some categories of risks are: <ul style="list-style-type: none">• Technical risks (e.g., operations or performance)• Program management risks• Organizational risks• External risks (e.g., legal or environmental)
Risk Exposure	The qualitative combination of Likelihood (Probability) and Consequence (Impact) components of a risk using a Risk Rating Matrix to prioritize risk to a program.

Term	Definition
Risk Factors/Risk Attributes	<p>The major characteristics of the risk that include:</p> <ul style="list-style-type: none"> • Probability that a risk will occur or anticipated frequency of risk event (how often) • Range of possible outcomes (what) (impact, severity, or amount at stake) • Anticipated timing or timeframe (when) • Expected Value (EV) (How much money?) or Expected Utility (EU) (What non-monetary value?).
Risk Fallback Plan	<p>A formal plan devised to identify specific action to be taken if the Risk Action Plan (Risk Mitigation Plan) is not effective. In the GOES-R Series Program Risk Management database, each fallback plan will be entered as a data item.</p>
Risk Identification	<p>A risk management activity that determines which uncertain events or conditions might affect the program and documenting their characteristics</p>
Risk Handling/ Action Planning	<p>Determining approaches that make the negative risk smaller or eliminate it entirely, as well as finding ways to make opportunities more likely or greater in benefit. This process involves:</p> <ul style="list-style-type: none"> • Strategies agreed upon in advance by all parties • Primary backup strategies are selected • Risks assigned to individuals, the Risk Owner, to take responsibility • Strategies reviewed over the life of the program for appropriateness and effectiveness • Triggers notifying the Risk Owner to take pre-planned, pre-approved action
Risk Management	<p>A process involving the following six steps:</p> <ul style="list-style-type: none"> • Risk Management Planning • Risk Identification • Risk Assessment and Analysis (Qualitative and Quantitative) • Risk Handling/Action • Risk Tracking and Control • Risk Documentation and Communication
Risk Management Board (RMB)	<p>Management board that is the official forum for formal evaluation, deliberation, classification and control of program risks.</p>
Risk Originator	<p>The individual that first identifies and records the risk in the Risk Management database.</p>
Risk Owner	<p>An individual assigned by the Program or Project Manager through the RMB to implement action/ mitigation plan activities needed to close or accept a specific risk with the authority and resources to action on a pre-approved plan once triggers are reached.</p>

Term	Definition
Risk Rating Matrix (Risk Matrix)	A matrix used to qualitatively sort or rate risks so a determination can be made as to which risks will move on through the risk process. Use of this matrix results in a more consistent evaluation of low, medium, or high making the risk rating process more repeatable across the program.
Risk Research	An extension of the Risk Identification in the case where specific research is warranted before completing the risk identification step and deciding between specific risk handling approaches. The risk action plan in the RM database then takes the form of a research plan with a commitment for the research report to be delivered by a specific date with other specific triggers and metrics also required.
Risk Response Strategies	<p>Activities needed to close or accept a specific risk. These strategies also referred to as risk action approaches involve developing options and determining actions to address the risk. This may include changing the planned approach to completing the objectives – e.g., changes to the Work Breakdown Structure (WBS), schedule, or budget. In each case, communication of risks and strategies is necessary as part of the risk handling/action planning. These strategies are documented in the risk action plan and the risk database. The strategies include:</p> <ul style="list-style-type: none"> • Research (part of the identify & analysis process) • Watch (part of the identify & analysis process) • Eliminate (Risk Avoidance) • Mitigation (Risk Control) • Acceptance • Transfer
Risk Reduction	The activities performed to reduce the likelihood of a risk occurring, or the consequence should the risk occur, or both.
Risk Tolerance	The amount of risk that is acceptable (tolerance level). For example: “a risk that affects our reputation will not be tolerated”, or “a risk of a two week delay is okay, but nothing more.”
Risk Triggers	The early warning signs or indirect manifestations (trends) for each risk on a program that indicate action needs to be taken. Risk triggers are part of the risk handling/action plan providing the “go-ahead” for implementing the pre-approved action plan.
R-squared (Ground Segment)	Statistical measure of how well a regression line approximates real data points, an r-squared of 1.0 (100%) indicates a perfect fit. The formula for r is: $r(x, y) = [\text{cov}(x,y)]/[\text{stddev}(x) * \text{stddev}(y)]$.
Sample	The data within the smallest discrete measurement.
Satellite	The orbital system comprising the spacecraft bus, instruments, and any other payloads.
Satellite Failure	Occurs when one of the primary instruments fails to meet the specified performance required to produce its mission criticality level 1 products. (TBR).

Term	Definition
Scalability	The ability of a hardware or software system to continue to function according to original specifications when it is enlarged (e.g., in terms of processing, storage, or throughput capacity) and to take performance advantage of the increase.
Segment	A major product, service, or facility of the system. For GOES-R Program, two segments are defined: Ground Segment and Space Segment.
Sensor Unit	Refers to the unit that contains the optics when pertaining to the instrument.
Service Request	Any type of request for information or service including requests for products.
Service Response	A response to the customer regarding a service request.
Shall	Use of this imperative word in a written statement designates a requirement.
Shall Allow (Ground Segment)	See “Shall be capable”
Shall be capable (Ground Segment)	The term shall be interpreted to mean that the function, service or capacity described is a mandatory requirement for the GS, but that the capability, service or capacity may not necessarily be exercised continuously (i.e., event driven, operator selected, operator initiated, etc.)
Shall enable (Ground Segment)	See “Shall be capable”
Shall have the capability (Ground Segment)	See “Shall be capable”
Shall permit (Ground Segment)	See “Shall be capable”
Shall provide the capability (Ground Segment)	See “Shall be capable”
Should	Designates a desired level of performance the government would like the contractor to strive towards achieving and is synonymous with the term “goal”.
Simulated data	Data generated to mimic the characteristics and content of real data.
Single Point Failure	A failure of a hardware or software element with no redundancy.
Single string of equipment	A system capable of performing all required functionality from data input through data output.
Software	Computer programs, procedures, rules, and associated documentation and data pertaining to the development and operation of a computer system. Software also includes Commercial Off-the-Shelf (COTS), Government Off-the-Shelf (GOTS), Modified Off-the-Shelf (MOTS), embedded software, reuse, heritage, legacy, auto generated code, firmware (instructions, logic, or associated data loaded into programmable devices (e.g. ASICs and FPGAs), and open source software components.
Space and Launch Segment Availability	The probability that the Space and Launch Segment can be successfully used for any specified mission over the stated period of time; this is a probability of success.

Term	Definition
Space Packet	Protocol Data Units that form the CCSDS packets
Space Segment	The Space Segment (SS) consists of a constellation of geostationary satellites and required pre-launch ground support equipment.
Spacewire	SpaceWire is a standard for high-speed links and networks for use onboard spacecraft, easing the interconnection of: sensors, mass-memories, processing units, and downlink telemetry sub-systems. SpaceWire equipment is connected together using SpaceWire links which are: serial, high-speed (2 Mbits/sec to 200 Mbits/sec), bi-directional, and full-duplex. Application information is sent along a SpaceWire link in discrete packets. Control and time information can also be sent along SpaceWire links
Spacecraft	For GOES-R, the spacecraft consists of the spacecraft bus, auxiliary communication services payloads, and Magnetometer.
Spacecraft Bus	The spacecraft bus consists of the necessary hardware and software required to accommodate the instruments and auxiliary communication services payloads.
Special Operation	Activity to support maintenance of satellite functions or engineering and science investigation outside of normal, routinely scheduled operations.
Specification	A detailed requirements or design document that provides a verification basis for a system or system element.
State	Condition of a system with respect to circumstances in the mission.
Stationkeeping	On-orbit spacecraft maneuver that corrects for orbital drifts.
Store (v.)	Retain and maintain data and information for retrieval. Does not imply permanent archive.
Stored Commands	Commands that are stored in the on-board computers RAM that are executed at a specified time. Each stored command contains a either an absolute or relative time tag that indicates when the command will be executed.
Subscription	A standing request for data or notification of data availability defined by user-specified criteria, to be delivered on a continuous or conditional basis.
Synthetic Data	Any kind of input or output data that is created to represent GOES-R data. Both proxy data and simulated data are types of synthetic data.
System	An integrated set of elements, segments, and/or subsystems that accomplish a defined objective. For the GOES-R Program, the GOES-R System represents the combined Space Segment and Ground Segment capabilities.
System Concept	The overall system technical approach, the architecture, and system operations concept developed to satisfy the system requirements document and user concept of operations.
System of Interest	The identified part of the system hierarchy, whether a part, assembly, or subsystem, that is assigned to the engineering team.

Term	Definition
System Performance and Operations Test (SPOT)	Refers to the period, which consists mainly of detailed verification and validation (V&V) of each aspect of flight and ground system performance, through V&V of: spacecraft performance metrics, bus subsystems and the end user products.
Systematic Errors	Consistently reproducible inaccuracies in the measured data due to the precision limitations of the measurement and bias.
Systems Engineering Life-Cycle	The systems engineering life cycle consists of three major stages: Concept Studies, Program Definition and Risk Reduction (PDRR), and A&O. Disposal of a satellite after its life is considered part of operations.
Systems Engineering Management Plan (SEMP)	An implementation plan for the performance of systems engineering functions and the development of systems engineering products. This plan identifies what, when, where, by whom, and how the functions are performed. It specifies the schedule for the development, and the resources required.
Tailored product	Any product modified to be different from its GOES-R required definition (e.g., sectorization, another format). A tailored product is no longer a GOES-R product.
Tailoring	The modification of a product to a form other than one of the standard forms produced by the GOES-R program, as defined and agreed in a Ground Segment IRD. OSDPD is responsible for tailoring GOES products.
Technical Performance Measurement System	The Technical Performance Measurement System is the system that will be used to track actual versus planned progress of critical performance and technical metrics.
Technology Refresh	Upgrade or replacement of ground-based equipment and system support software to reflect advances in technology occurring throughout the mission lifecycle.
Temperature Cycle	A transition from some initial temperature condition to temperature stabilization at one extreme and then to temperature stabilization at the opposite extreme and returning to the initial temperature condition.
Temporal Coverage Qualifier	Provides product-specific limitations to the solar zenith angle coverage of the products. When the term Day is used in the temporal qualifier, Day is defined as solar zenith angles less than or equal to 96 degrees. When the term Night is used in the temporal qualifier, Night is defined as solar zenith angles greater than 96 degrees and includes the period of twilight.
Theoretical Available Observable Data	Data collected during time periods when the instrument theoretically should be able to collect useful data
Thermal Balance Test	A test conducted to verify the adequacy of the thermal model, the adequacy of the thermal design, and the capability of the thermal control system to maintain thermal conditions within established mission limits.
Thermal-Vacuum Test	A test conducted to demonstrate the capability of the test item to operate satisfactorily in vacuum at temperatures based on those expected for the mission. The test, including the gradient shifts induced by cycling between temperature extremes, can also uncover latent defects in design, parts, and workmanship.

Term	Definition
TMON Rule	A TMON Rule defines the action to be taken when a red limit violation is detected.
To Be Determined (TBD)	Information that is currently unknown or uncertain and must be proposed by the contractor.
To Be Reviewed (TBR)	Statements, requirements, or values that are subject to review by the Government and the contractor. The requirement applies as written, and “TBR” indicates that the value may change upon review. Contractor may review and suggest a modified value and rationale for TBR values.
To Be Supplied (TBS)	Information, data, or details to be supplied at a future time by the government. The government will provide a date or milestone to resolve each TBS requirement.
Total Mass Loss (TML)	Total mass of material outgassed from a specimen that is maintained at a specified constant temperature and operating pressure for a specified time.
Transmission rate	The total downlink or uplink data rate that includes the rate of observation data as well as coding or other overhead.
Two Step Command	A command that requires a confirmation from the Space Operations Control Center (SOCC) once the command is initiated.
Unit	A functional subdivision of a subsystem and generally a self-contained combination of items performing a function necessary for the subsystem’s operation. Examples are electronics unit and sensor unit.
User	A class of organizations that acquire GOES-R data and products to support a mission, environmental assessment, or scientific research.
User, Authorized	A set of users approved to receive GOES-R-distributed end-products. Authorization is granted through a user access form and approval by OSDPD through SPSRB (Satellite Product & Services Review Board).
User, CLASS	Any user with access to the CLASS archive repository for GOES products stored therein. Includes retrospective and other users, whether authorized or not.
User, GRB	Any user with the ability to receive GOES-R Rebroadcast Level 1b product via space-ground link. A GRB user does not have to be an authorized user. Their optional interaction back to GOES-R is to report reception problems or other GRB performance observations.
User, eGVAR	Any user receiving GOES-R information via GOES legacy broadcast. An eGVAR user does not have to be an authorized user. The Ground Segment interface is to the GOES-N ground segment and does not include the broadcast interface.
User Community	A general term describing the aggregate of GOES-R users composed of the subset of rebroadcast users, data subscription users, data products subscription users, retrospective users, and communication systems data users.
User Distribution Point	The Ground Segment interface from which GOES-R products and information are distributed by the Ground Segment.

Term	Definition
User Service Functionality	Includes the software and hardware of the system that provides the capacity of the system to interface with the user through the Mission Management Functionality.
Validation	The process of determining that the deliverable item satisfies its intended use in its intended environment.
Validation Basis	The basis for validation is a set of requirements that provide the success criteria for a system or system element. The mission requirements are provided in the Mission Requirements Document (MRD), an applicable document.
Variance	An authorization for temporary relief in advance from a specific requirement and is requested during the formulation/planning/design stages of a program/project operation to address expected situations.
Verification	The process of determining that the deliverable item meets specified requirements, using methods such as test, demonstration, analysis, and inspection.
Verification Basis	The basis of verification is a description and definition, for each requirement, of the method used to verify that requirement has been achieved, e.g. by test, analysis, design, inspection and/or a combination of methods.
Verification by Analysis	The use of mathematical models and analytical techniques to predict the suitability of design and compliance with a requirement, when the subject item is not available or suitable for testing.
Verification by Demonstration	The observation of an item in use under specific, controlled conditions in order to determine if it satisfies a requirement, without the detailed data collection and analysis that is part of testing.
Verification by Inspection	The visual examination of a item in order to determine if it satisfies a requirement.
Verification by Test	The use of an item under specific, controlled conditions in order to obtain detailed data and/or information that can be evaluated to determine if the item satisfies a requirement.
Waiver	A known departure from requirements identified after manufacturing or development. Requires government approval.
Watch Item	An issue or concern considered for elevation to a risk. If the issue is not validated as a risk, no immediate action is taken.
West Geostationary Orbit Location	137 degrees West Longitude.
Will	The term “will” designates a statement of fact or intention of the government and is not to be interpreted as a contractor requirement.
Witness	A personal, on-the-scene observation of a performance assurance activity with the purpose of verifying compliance with project requirements

Term	Definition
Yaw Flip	An attitude maneuver of the spacecraft 180 degrees about the nadir (yaw) axis that reverses the signs of pitch and roll relative to the orbit frame while maintaining yaw pointing at nadir.

3.0 Acronym List

Acronyms are formed using the initial letters of words or word parts in a phrase or name. Acronyms are usually pronounced in a way that is distinct from that of the full forms for which they stand: as the names of the individual letters.

Acronym	Description
%AC	percent area coverage
A&O	Acquisition and Operations
A/D	analog to digital
A	Ampere(s)
AA	Assistant Administrator (NOAA)
AA	Associate Administrator (NASA)
ABI	Advanced Baseline Imager
ABIE	Advanced Baseline Imager Emulator
ABPL	As-Built Parts List
ACK	acknowledgement
ACS	Attitude Control System
ACT	Activation and Characterization Test
ACWP	Actual Cost of Work Performed
ADC	Analog to Digital Converter
ADPL	As-Designed Parts List
ADR	Algorithm Design Review
ADRS	Ancillary Data Relay System
AF	award fee
AFRB	Award Fee Review Board
AFSCM	Air Force Space Command Manual

Acronym	Description
AFSPCMAN	Air Force Space Command Manual
AFSPC	Air Force Space Command
AFWA	Air Force Weather Agency
AG	as generated
AGE	Aerospace Ground Equipment
AGM	Annual Guidance Memorandum
AGO	Acquisition and Grants Office (NOAA)
AI	action item
AIAA	American Institute of Aeronautics & Astronautics
AIR	Action Item Review
AIS	Automated Instrument Scheduling
AI&T	assembly, integration, and test
AlloIDs	Allocation Identifications
ANSI	American National Standards Institute
Ao	Availability (Operational)
AO	Announcement of Opportunity
AoA	Analysis of Alternatives
AOS	Acquisition of Signal
AOS	Advanced Orbiting System
AP	Algorithm Package
APA	Allowance for Program Adjustment
APID	Applications Identification
APPL	Academy of Program and Project Leadership
AR	Acceptance Review
AR	as required
ARB	Acquisition Review Board

Acronym	Description
ASD	Acceleration Spectral Density
ASIC	Application Specific Integrated Circuits
ASM	Acquisition Strategy Meeting
ASP	Attitude Sensor Package
ASPD	Assistant System Program Director
ASQC	American Society for Quality Control
ASTM	American Society for Testing and Materials
ATBD	Algorithm Theoretical Basis Document
ATC	Assurance Technology Corporation
ATD	Advanced Technology Development
ATM	Asynchronous Transfer Mode
ATO	Authority to Operate
ATP	Authority To Proceed
ATRR	Acceptance Test Readiness Review
ATS	absolute time sequence
AVS	Angular Velocity Sensor
AWC	Aviation Weather Center (NWS)
AWG	Algorithm Working Group
AWIPS	Advanced Weather Interactive Processing System
BAA	Broad Agency Announcement
BAC	Budget At Completion
BAT	Bench Acceptance Test
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
BER	Bit Error Rate

Acronym	Description
BM	Bi-Monthly
BNL	Brookhaven National Laboratory
BOC	Break of Configuration
BOE	Basis of Estimate
BOL	beginning of life
BOM	Business Operations Manual
bps	bits per second
BPSK	bi-phase shift key
BRF	body reference frame
BW	bandwidth
BW	Bi-weekly
C	Capacity
C	Celsius (degrees)
C ²	command and control
C ³	Command, Control and Communication
C ³ S	Command, Control, and Communications Segment (or System)
C&A	Certification and Accreditation
CAD	computer-aided design
CADCAM	Computer Aided Design Computer Aided Manufacturing
CADR / CADRe	Cost Analysis Data Requirement
CAIV	Cost as an Independent Variable
CAM	Commerce Acquisition Manual (DOC)
CAM	Control Account Management
CAN	Cooperative Agreement Notice
CAP	Contractor Acquired Property

Acronym	Description
CAPL	Capillary Pumped Looped Technology
CAR	Commerce Acquisition Regulations (DOC)
CARD	Cost Analysis Requirements Document
CBE	Contractor Best Estimate
CCA	Circuit Card Assembly
CCAFS	Cape Canaveral Air Force Station
CCB	Configuration Control Board
CCBD	Configuration Control Board Directive
CCD	Charge Coupled Device
CCHP	Constant Conduction Heat Pipe
CCR	Configuration Change Request
CCRM	Continuous Cost Risk Management
CCSDS	Consultative Committee for Space Data Systems
CD	Center Director
CD	Compact Disk
CDA	Command and Data Acquisition
CDAS	Command and Data Acquisition Station
C&DH	Command and Data Handling
CDL	Controlled Documents List
CDR	Critical Design Review
CDRD	Contract Data Requirements Document
CDRL	Contract Data Requirements List
CERT	Cost Estimation Reconciliation Team
CFE	Contractor-Furnished Equipment
CFO	Chief Financial Officer
CFSR	Contract Funds Status Report

Acronym	Description
CFY	contract fiscal year
CHOP	Countermeasures Hands-On Program
CIL	Critical Items List
CI	configuration item
CIO	Chief Information Officer
CIRT	Contractor Interim Response Team
CITRB	Commerce Information Technology Review Board (DOC)
CLASS	Comprehensive Large Array-data Stewardship System
CLIN	contract line item number
cm	centimeter
CM	Configuration Management
CMART	Configuration Management and Anomaly Reporting & Tracking
CMC	Center Management Council (GSFC)
CMD	command
CMD	Contract Management Division
CME	Coronal Mass Ejection(s)
CMO	Configuration Management Office
CM&O	Center Maintenance and Operations
CMP	Center Real Property Master Plan
CMP	Configuration Management Plan
CMMI	Capability Maturity Model Integration
CND	Could-Not-Duplicate
CNR	Clutter-to-Noise Ratio
CO	Contracting Officer
CoF	Construction of Facilities
COFR	Certificate of Flight Readiness

Acronym	Description
COI	critical operations issues
COMM	Communications
COMSEC	Communications Security
CONOPS / ConOps	Concept of Operations
CONUS	Contiguous United States
COOP	Continuity of Operations
COP	Contingency Operations Procedure
COPV	Composite Overwrapped Pressure Vessel
COR	Contracting Officer's Representative
CORL	Consolidated Observational Requirement List
COSPAS	Cosmicheskaya Sistyema Poiska Avariynich Sudov (Space System for the Search of Vessels in Distress)
COTR	Contracting Officer's Technical Representative
COTS	Commercial Off-The-Shelf
CP	Command Procedure
CPC	Computer Program Component
CPCI	Computer Program Configuration Item
CPL	Capillary Pumped Loop
CPI	Cost Performance Index
CPM	Computer Program Module
CPMT	Command Procedure Message Text
CPR	Contractor Performance Report
CPR	Cost Performance Report
CPSR	Contractor Purchasing System Review
CPT	Comprehensive Performance Test
CPU	Central Processing Unit

Acronym	Description
CQCM	Cryogenic Quartz Crystal Microbalance
CRC	Cyclic Redundancy Check
CRM	Continuous Risk Management
CRYOHP	Cryogenic Heat Pipe
CRYOTP	Cryogenic Two Phase
CS	Conducted Susceptibility
CSC	Computer Software Component
CSCI	Computer Software Configuration Item
CSI	Customer Source Inspections
CSU	channel service unit
CTG	Cost To Go
CTV	Compatibility Test Van
CVCM	Collected Volatile Condensable Material
CWBS	Contractor Work Breakdown Structure
DAA	Deputy Assistant Administrator
DAAS	Deputy Assistant Administrator Systems
DAB	Data Archive Board (NESDIS)
DACA	days after contract award
DAMS	Data Acquisition and Monitoring Subsystem (DCS)
DAO	Department Administrative Order
DAP	Delivered Algorithm Package
DAPS	Data Collection System (DCS) Automatic Processing System
DAS	Data Acquisition System
dB	decibel
DBMS	database management system

Acronym	Description
dc	Direct Current
DCAA	Defense Contract Auditing Agency
DCMA	Defense Contract Management Agency
DCP	Data Collection Platform
DCPC	Data Collection Platform Commands
DCPI	Data Collection Platform Interrogation
DCPR	Data Collection Platform Report
DCR	Document Change Record
DCS	Data Collection System
DCS-GES	DCS Ground Equipment Set
DDR	Data Delivery Report (CLASS)
deg	degree
DEM	Differential Emission Measure
DESA	Defense Evaluation Support Activity
DFT	Discrete Fourier Transform
DID	Data Item Description
DISTM	Detailed Integrated Satellite Thermal Model
DIT	Dynamic Interaction Test
DM	Data Manager
DMAP	Data Management and Analysis Plan
DMSP	Defense Meteorological Satellite Program
DOC	Department of Commerce
DOCTREE	Document Tree
DoD	U.S. Department of Defense
DOD	Depth of Discharge
DOE	Department of Energy

Acronym	Description
DOF	degrees of freedom
DOORS	Dynamic Object Oriented Requirements System
DOST	Data Operations Support Team
DOT	Data Operations Test
DPA	Destructive Physical Analysis
DPM	Deputy Project Manager
DPMR	Deputy Project Manager Resources
DPU	Data Processing Unit
DR	discrepancy report
DR	Disposal Review
DRD	Data Requirement Description
DRFP	Draft Request for Proposal
DRGS	Direct Readout Ground Station (DCS)
DRM	Design Reference Mission
DRP	Design Review Program
DRS	DRS Technologies
DSN	Deep Space Network
DSP	digital signal processing
DSPD	Deputy System Program Director
DSU	data synchronization unit
DTO	Detailed Test Objectives
DUS	Deputy Under Secretary
DVD	Digital video disk; digital versatile disk
DWG	Drawing
E	East

Acronym	Description
EA	Enterprise Architecture
EA	Environmental Assessment
EAC	Estimate At Completion
EAR	Export Administration Regulations
ECI	Earth Centered Inertial
ECP	Engineering Change Proposal
ECR	Environmental Compliance and Restoration
ECRA	Electrical Contact Ring Assembly
ECRB	Engineering Change Review Board
ECSS	European Cooperation for Space Standardization
EDU	Engineering Development Unit
EED	Electro-Explosive Device
EEE	Electrical, Electronic and Electromechanical
EELV	Evolved Expendable Launch Vehicle
EELV-M	Evolved Expendable Launch Vehicle - Medium
EGSE	Electrical Ground Support Equipment
eGVAR	emulated GVAR
EHIS	Energetic Heavy Ion Sensor
EIA	Electronic Industries Alliance
EIL	equipment identification list
EIRR	External Independent Readiness Review
EIS	Environmental Impact Statement
ELDR	Enhanced Low Dose Rate
ELT	Emergency Locator Transmitter
ETU	Engineering Test Unit
ELV	Expendable Launch Vehicle

Acronym	Description
EM	Engineering Model
EM	Enterprise Management
EM	Equivalent Manning
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EMOSS	Engineering Mission Operations Support Services
EMWIN	Emergency Managers Weather Information Network
EO	Electro-Optical
EO	Engineering Order
EOC	Element of Cost
EOC	End-of-charge
EOCC	Experiment Operations Control Center
EOD	End-of-Discharge
EOL	End of Life
EOS	Electro-Optical System
EP&D	Electrical Power & Distribution
EPEAD	Energetic Proton, Electron, and Alpha Detector
EPIRB	Emergency Position Indicating Radio Beacon
EPS	Electrical Power Subsystem
EPS	Energetic Particle Sensor
ER	Eastern Range
ERB	Earth Radiation Budget
ERB	Engineering Review Board
ER/WR	Eastern Range/Western Range
ESD	electro static discharge
ESPC	Environmental Satellite Processing Center

Acronym	Description
ESTE	Electrical System Test Equipment
ETE or E-T-E	End-to-End
ETM	Engineering Test Model
ETS	Engineering and Test Support
ETU	Engineering Test Unit
EU	Electronics Unit
EU	Expected Utility
EUV	Extreme Ultraviolet
EUVS	Extreme Ultraviolet Sensor
eV	electron Volts
EV	Expected Value
EVM	Earned Value Management
E/W	East/West (or East – West)
EWSK	East/West Stationkeeping
EXIS	Extreme Ultraviolet (EUVS) and X-ray Irradiance Sensor (XRS)
FAA	Federal Aviation Administration
F&PS	Functional and Performance Specification
FAD	Formulation Authorization Document
FAR	Federal Acquisition Regulation
FAT	Factory Acceptance Test
FCA	Functional Configuration Audit
FCDAS	Fairbanks CDAS
FD	full disk
FD&C	Fault Detection and Correction
FDC	Fault Detection and Correction

Acronym	Description
FDF	Flight Dynamics Facility
FDO	Fee Determination Officials
FDRR	Full Disk Rationing Radiometer
FEA	Finite Element Analysis
FEC	forward error correction
FECC	forward error correction code
FER	frame error rate
FEM	Finite Element Model
FEMA	Federal Emergency Management Agency
FET	Field Effect Transistor
FIPS	Federal Information Processing Standard
FIST	Final Integrated System Test
FITS	Flexible Image Transport System
FM	Flight Model
FMEA	Failure Modes and Effects Analysis
FMECA	Failure Modes Effects and Criticality Analysis
FMFIA	Federal Managers' Financial Integrity Act
FMS	Fault Management System
FNMOC	Fleet Numerical Meteorology and Oceanography Center
FOC	Full Operational Capability
FOIA	Freedom of Information Act
FOO	Flight Operations Office
FOR	field of regard
FOR	Flight Operations Review
FOV	field of view
FPA	Focal Plane Array

Acronym	Description
FPGA	Field Programmable Gate Arrays
FPPD	Flight Program and Projects Directorate
FPM	Facility Project Manager
FPM	Flight Project Manager
FRB	Failure Review Board
FRR	Flight Readiness Review
FSDE	Flight Software Development Environment
FSK	Factor of Safety – Known Torque
FSV	Factor of Safety – Variable Torque
FSW	flight software
FTA	Fault Tree Analysis
FTE	full-time equivalent
FTK	fuel tank
FTP	file transfer protocol
FY	Fiscal Year
g	Earth’s gravitational acceleration
GAGL	Government-Allocated Ground Latency
GAO	Government Accountability Office
GAS	GOES-R Access Subsystem
GAS	GOES Archive System
GB	gigabyte (10E9 bytes)
GDE	GOES-R Data Exploitation
GDMS	GSFC Directives Management System
GEO	geosynchronous-earth-orbit
GEOSS	Global Earth Observation System of Systems

Acronym	Description
GEVS	General Environmental Verification Standard
GEVS-SE	General Environmental Verification Specification for STS & ELV Payloads, Subsystems, and Components
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFP	Government Furnished Property
GFY	Government Fiscal Year
GHB	Goddard Space Flight Center Handbook
GIA	Government Inspection Agency
GIDEP	Government-Industry Data Exchange Program
GIR	GOES Incident Report
GIRD	General Interface Requirements Document
GL-C3S	Ground Located – Command, Control, and Communication Segment
GLM	Geostationary Lightning Mapper
GMI	Goddard Management Instruction
GN	Ground Network
GN&C	Guidance, Navigation and Control
GNATS	GOES Navigation Analysis and Trending System
GOES	Geostationary Operational Environmental Satellite
GOES-NOP	GOES-N Series satellites
GOES-R	Geostationary Operational Environmental Satellite-R series
GOP	Ground Operations Plan
GORWG	GOES-R Operational Requirements Working Group
GOTS	government off-the-shelf
GOWG	Ground Operations Working Group
GP	Geophysics Directorate

Acronym	Description
GPA	Ground Processing Algorithm
GPAD	Ground Processing Algorithm Document
GPD	Goddard Policy Directive
GPDS	Ground Processing Demonstration System
GPG	Goddard Procedures and Guidelines
GPMC	Governing Program Management Council
GPO	GOES-R Program Office
GPR	Goddard Procedural Requirements
GPRA	Government Performance and Results Act
GPRD	GOES Program Requirements Document
GPS	Global Positioning System
GRB	GOES Rebroadcast
GRD	GOES-R Requirements Document
GRDDP	GOES-R Reliable Data Deliver Protocol
GS	Ground Segment
GSE	Ground Support Equipment
GSFC	Goddard Space Flight Center (NASA)
GSMAR	Ground Segment Mission Assurance Requirements
GSP	Ground Segment Project
GTACS	GOES-NQ Telemetry and Command System
GTO	Geosynchronous Transfer Orbit
GUI	graphical user interface
GVAR	GOES Variable Data (Legacy GOES)
H&S	health and safety
HA	hazard analysis

Acronym	Description
HDBK	Handbook
HDF	Hierarchical Data Format
HDVIP	High Density Vertically Interconnected Photodiode
HEC	Header Error Code
HEL	High Electron Laser
HELSTF	High Energy System Test Facility
HFMS	High Fidelity Mechanical Simulator
HGA	High Gain Antenna
HMD	Hardware Maintenance Depot
HMI	human machine interface
HP	Hewlett-Packard
HQ	headquarters
HSPD-12	Homeland Security Presidential Directive - 12
HTL	Hazard Tracking Log
HVAC	heating, ventilation, and air conditioning
HWCI	hardware configuration item
Hz	Hertz
I&Q	In-Phase & Quadrature
I&T	Integration and Test
I/F	interface
I/O	input/output
IA	Independent Assessment
IAC	independent assurance contractor
IBPD	Integrated Budget and Performance Document
IBR	Integrated Baseline Review

Acronym	Description
IC	Integrated Circuit
ICA	Independent Cost Analysis
ICD	Interface Control Document
ICE	Independent Cost Estimate
ICT	Internal Calibration Target
IDD	Instrument Description Document
IDD	Internet Data Distribution
IDT	Integrated Development Team
IEC	International Electrotechnical Commission
IER	Initial Evaluation Review
IESD	Internal Electrostatic Discharge
IF	Intermediate Frequency
IFMS	Integrated Financial Management System
IIR	Independent Implementation Review
IIR	Integrated Independent Review
IIRP	Integrated Independent Review Plan
IIRT	Integrated Independent Review Team
ILCCA	Independent Life-Cycle Cost Analysis
ILS	Integrated Logistics Support
ILSP	Integrated Logistics Support Plan
IMAR	Instrument Mission Assurance Requirements
IMP	Integrated Management Plan
IMS	Integrated Master Schedule
INR	Image Navigation and Registration
INS	Instruction
IOC	Initial Operational Capability

Acronym	Description
IP	Internet Protocol
IPv6	Internet Protocol version 6
IPAMS	IP Address Management System
IPAO	Independent Program Assessment Office
IPC	Association Connecting Electronics Industries
IPD	Individuals and Integrated Product Development Teams
IPD	Information Processing Division (OSDPD)
IPT	Integrated Product Team
IR	infrared
IRAD	Independent Research and Development
IRD	Interface Requirements Document
IRT	Independent Review Team
IRU	inertial reference unit
ISE	Instrument Systems Engineer
ISM	Instrument Systems Manager
ISMP	Integrated Schedule Management Plan
ISO	International Organization for Standardization
ISP	Specific Impulse
IT	Information Technology
ITA	Independent Technical Authority
ITAR	International Traffic in Arms Regulations
ITRB	Information Technology Review Board
ITT	ITT Industries
ITU	International Telecommunication Union
IV&V	Independent Verification and Validation

Acronym	Description
JCSDA	Joint Center for Satellite Data Assimilation
JOFOC	Justification for Other than Full and Open Competition
JPEG	Joint Photographic Experts Group
K	Kelvin
kbps	kilobits per second (10E3 bits)
KDP	Key Decision Point(s)
kg	kilogram
km	kilometer
kPa	kilo Pascals
KPP	Key Performance Parameter
KSC	Kennedy Space Center
KTR, Ktr	contractor
L	Launch
L0	Level 0
L1B, or L1b	Level 1B; Level 1b
L1R	Level 1 Requirement
L2	Level 2
L2+	Level 2 and higher
LAN	local area network
LAPSS	Large Area Pulsed Solar Simulation
LASP	Laboratory for Atmospheric and Space Physics
LCC	life cycle cost
LCCE	life-cycle cost estimate
LEO	Low Earth Orbit

Acronym	Description
LHCP	left-hand circular polarization
Li	Lithium
LIRD	Level 1 Requirements Document
LLIS	Lessons Learned Information System
LOA	Letter of Agreement
LOE	level of effort
LOR	Launch and Orbit Raising
LOS	line-of-sight
LPT	Limited Performance Test
LMATC	Lockheed Martin Advanced Technology Center
LR	launch of GOES R satellite
LRD	Launch Readiness Date
LRIT	Low-Rate Information Transfer
LRIT	Low Rate Information Transmission
LRITT	Low Rate Information Transmission Terminal
LRR	Launch Readiness Review
LRU	line replaceable unit
Ls	launch of GOES-S satellite
LSB	least significant bit
LSIP	Launch Site Integration Plan
LSSP	Launch Site Support Plan
LUT	local user terminal
LUT	look-up table (ancillary data)
LV	launch vehicle
LVRR	Launch Vehicle Readiness Review
LW	longwave

Acronym	Description
LWIR	longwave infrared
LZA	local zenith angle
m	meter
ma	milli-ampere(s)
MAD	Margin Allocation Document
MAG	Magnetometer
MAID	Master Action Item Database
MAP	Mission Assurance Plan
MAR	Mission Assurance Requirements
MAT	Mission Allowable Temperature
MaxTTRS	maximum time to restore service
mb	millibar
MB	megabyte (10E6 bytes)
Mbps	megabits per second (10E6 bits)
McIDAS	Man-computer Interactive Data Access System
MCDM	Multi-Criteria Decision Making
MCID	Master Channel ID
MCM	Multi-Chip Module
MCP	Management Control Plan
MCR	Mission Confirmation Review
MCRR	Mission Confirmation Readiness Review
MDAA	Mission Directorate Associate Administrator
MD-5	Message digest – 5
MDL	Multiuse Data Link
MDR	Mission Definition Review

Acronym	Description
ME	Materials Engineer
MEB	Materials Engineering Branch
MEFL	Maximum Expected Flight Level
MEO	Medium Earth Orbit
m-g	milli-g (Earth's gravitational acceleration)
MGSE	Mechanical Ground Support Equipment
MHz	MegaHertz
MIL	military
MIL-STD	military standard
MITEQ	Microwave Information Transmission Equipment
MLI	Multilayered Insulation
mm	millimeter
MM	Mission Management (Ground Segment Element)
MMD	Mean Mission Duration
MMI	man-machine interface
MMPDS	Metallic Materials Properties Development and Standardization
MOA	Memorandum of Agreement
MOE	measure of effectiveness
MOM	Mission Operations Manager
MOR	Mission Operations Review
MOSFET	Metal Oxide-Silicon Field Effect Transistor
MOST	Mission Operations Support Team
MOU	Memorandum of Understanding
MOWG	Mission Operations Working Group
MPC	Merged Processing Center
MPR	Monthly Program Review

Acronym	Description
MPS	Magnetospheric Particle Sensor
MRB	Material Review Board
MRD	Mission Requirements Document
MRR	Mission Readiness Review
MRS&S	Multiuse Data Link Receive System and Server
MRT	Mission Readiness Test
ms	milliseconds
msec	millisecond
MSFC	Marshall Space Flight Center
MSOD	Mission Support Office Director
MSPSP	Missile Systems Pre-Launch Safety Package
MSR	Management Status Review
MSR	Monthly Status Report
MSR	Monthly Status Review
MSRD	Mission/System Requirements Document
MTBF	Mean Time Before Failure
MTBF	Mean Time Between Failures
MTE	major test event
MTG	Maintenance Test Group
MTTR	mean time to repair
MTTRS	mean time to restore service
MUA	Materials Usage Agreement
MWIR	mid-wave infrared
N	Newton
N	North

Acronym	Description
NAR	Non-Advocate Review
NASA	National Aeronautics and Space Administration
NASCOM	NASA Communications
NASTRAN	NASA Structural Analysis
NAVOCEANO	Naval Oceanographic Office
NCDC	National Climatic Data Center (NESDIS)
NCEP	National Center for Environmental Prediction (NWS)
NCIRT	NOAA Computer Incident Response Team
NDA	Non-Disclosure Agreement
NDE	Non-Destructive Evaluation
NDE	NPOESS Data Exploitation
NEC	NOAA Executive Council
NEN	NASA Engineering Network
NEP	NOAA Executive Panel
NEPA	National Environmental Policy Act
NEII	NESDIS Enterprise Infrastructure Interface
NESDIS	National Environmental Satellite, Data and Information Service
NESDIS AA	NOAA Assistant Administrator for Satellite and Information Services
NET	no earlier than
NetCDF	Network Common Data Form
NFS	NASA Federal Acquisition Regulation (FAR) Supplement
NGDC	National Geophysical Data Center (NESDIS)
NIST	National Institute of Standards and Technology
NITRB	NOAA Information Technology (IT) Review Board
NLT	no later than
N-m	Newton-meter

Acronym	Description
N-m-sec	Newton-meter-second
NMFC/JTWC	Naval Maritime Forecast Center/Joint Typhoon Warning Center
NMFS	National Maritime & Fisheries Services (NOAA)
NOA	New Obligation Authority
NOAA	National Oceanic and Atmospheric Administration
NODIS	NASA On-Line Directives Information System
NOMAT	Non Operational Mission Allowable Temperatures
NOS	National Ocean Service
NOSC	NOAA Observing System Council
NOT	Non-operational Temperatures
nPa	Nano Pascals
NPD	NASA Policy Directive
NPOESS	National Polar-Orbiting Environmental Satellite System
NPG (replaced with NPR)	NASA Procedures and Guidelines
NPP	NPOESS Preparatory Project
NPR	NASA Procedural Requirement(s)
NPSL	NASA Parts Selection List
NRA	NASA Research Announcement
NRZ-S	non-return to zero space
N/S	North - South or North/South
NSA	National Security Agency
NSOF	NOAA Satellite Operations Facility
NSPAR	Nonstandard Parts Approval Request
NSSK	North/South Station-keeping
nT	nano Tesla

Acronym	Description
NTIA	National Telecommunications and Information Administration
NVR	Non-Volatile Residue
NWP	numerical weather prediction
NWS	National Weather Service
NWSTG	NWS Telecommunications Gateway
OAIT	Office Automation and Infrastructure Technology
OAR	Office of Atmospheric Research
OBC	on-board computer
OBW	off bi-weekly
OCE	Office of the Chief Engineer
OCFO	Office of the Chief Financial Officer
OCIO	Office of the Chief Information Officer (DOC)
OCS	Office of the Chief Scientist
OD	orbit determination
ODA	orbital debris assessment
ODC	other direct cost
OEM	original equipment manufacturer
OFI	other functional initiative
OGE	Operations Ground Equipment (GOES-I/P)
OHA	operations hazard analysis
O&M	operations and maintenance
OM	Observatory Manager
OMAT	Operational Mission Allowable Temperatures
OMB	Office of Management and Budget

Acronym	Description
OPS	operations
OPSCON / OpsCon	Operations Concept
ORA	Office of Research and Applications (NESDIS)
ORF	Orbit Reference Frame
ORR	Operations Readiness Review
ORTT&C	Orbit Raising, Tracking, Telemetry and Command
O&S	operations and support
OSD	Office of Satellite Development
OSD	Office of Systems Development (NESDIS)
OSDPD	Office of Satellite Data Processing and Distribution (NESDIS)
OSHA	Occupational Safety and Health Administration
OSHA	Operating and Support Hazard Analysis
OSO	Office of Satellite Operations (NESDIS)
OSP	Office of Strategic Planning
OSR	optical solar reflectors
OSSMA	Office of Systems Safety and Mission Assurance
OSY	Office of Security
OTS	off-the-shelf
P ³ I or P3I	Pre-Planned Product Improvement
PA	performance assurance
PACR	Planned Activity Change Request
PAF	payload attachment fitting
PAPL	Project Approved Parts List
PA&R	Program Audit and Review (OSMA)
PB	petabyte (10E15 bytes)

Acronym	Description
PBM	Program Business Manager
PC	proposed change
PCA	physical configuration audit
PCA	Program/Project Commitment Agreement
PCB	printed circuit board
PCC	Program Cost Commitment
PCO	Procurement Contracting Officer
PCP	Parts Control Program
PD	Position Description
PD	Product Distribution (Ground Segment Element)
PDA	percentage of defectives allowable
PDA	personal digital assistant
PDL	Product Development Lead
PDR	Preliminary Design Review
PDRR	Program Definition and Risk Reduction
PDT	Product Design Team
PDT	Product Development Team
PE	Project Engineer
PEB	Performance Evaluation Board
PEM	plastic encapsulated microcircuits
PER	Pre-Environmental Review
PES	Performance Evaluation System
PFM	protoflight model
PG	Product Generation (Ground Segment Element)
PG	Procedures and Guidelines

Acronym	Description
PHA	Preliminary Hazard Analysis
PIL	Parts Identification List
PIND	Particle Impact Noise Detection
PLAR	Post-Launch Acceptance Review
PLN	Plan
PLPT	Post-Launch Product Test
PLT	post-launch test
PM	payload module
PM	Product Monitor
PM	Program Management
PM	Project Manager
PMA	Preliminary Mission Analysis
PMAM	Program Mission Assurance Manager
PMC	Program Management Council (NOAA)
PCMB	Parts and Materials Control Board
PMCP	Parts and Materials Control Plan
PMO	Program Management Office
PMP	Project Management Plan
PMR	Program Management Review
PMR	Project Management Review
PMSR	Project Management Status Review
POA&M	plans of action and milestone (security)
POC	point of contact
POES	Polar Operational Environmental Satellites
POP	Period of Performance (contract)
POP	point of presence (network)

Acronym	Description
POP	Program Operating Plan
PORD	Performance and Operational Requirements Document
POST	power on self test
PP	Project Plan
ppb	parts per billion (1E-9)
PPBES	Planning, Programming, Budgeting and Execution System
PPE	Project Parts Engineer
PPF	Payload Processing Facility
ppm	parts per million
PPRD	Payload Processing Requirements Document
PPS	Pulse per second
PR	project risk
PRA	probabilistic risk assessment
PRAD	Payload Resource Allocation Document
PRD	Program Requirements Documents
PREL	pre-launch
PRE-MSR	Pre-Monthly Status Review
PRF	performance requirements for
PRIMX	Program Risk Information Management exchange
PSD	power spectral density
PSE	Program System Engineering
PSM	Project Safety Manager
PSPEC	Performance Specification
PSR	Pre-Shipment Review
PSR	Project Status Review
PSTR	Pre-Storage Review

Acronym	Description
PTM	prototype model
PTP	Programmable Telemetry Processor
PTR	Post Test Review
PVM	Performance Verification Matrix
PVP	Performance Verification Plan
PWB	printed wiring board
QA	quality assurance
QCI	Quality Conformance Inspection
QCM	Quartz Crystal Microbalance
QML	Qualified Manufacturer's List
QMS	Quality Management System
QPL	Qualified Parts List
QSR	Quarterly Status Review
RAC	risk assessment classification
RAD	Resource Allocation Document
RAM	Resource Allocation Matrix
RAM	random access memory
RBU	remote backup
RCVR	receiver
RE	Radiation Engineer
REMB	Resource and Engineering Management Board
RF	radio frequency
RFA	request for action
RFC	River Forecast Centers

Acronym	Description
RFC	request for change
RFI	radio frequency interference
RFP	request for proposal
RH	relative humidity
RHCP	right-hand circular polarization
RIS	risk information sheet
RISTM	Reduced Integrated Satellite Thermal Model
RIU	remote interface unit
RM	requirements management
RM	Risk Manager
RM	risk management
RMA	reliability, maintainability, and availability
RMB	Risk Management Board
RMIS	Risk Management Information System
RMM	Radiometric Math Model
RMP	Requirements Management Plan
RMP	Risk Management Plan
RMS	Resources Management System
RMS	Requirements Management System
RO	Risk Owner
ROI	return on investment
ROM	read only memory
ROM	rough order of magnitude (Ground)
ROP	Recommended Operating Procedure
RPIE	real property installed equipment
RPM	Replacement Product Monitor

Acronym	Description
RPP	Reliability Program Plan
RPT	report
R-S	Reed-Solomon
RSS	Range Safety System
RSS	root sum square
R/T	receive/transmit
RT	real-time
RTCS	Relative Time Command Sequence
RTL	Risk Tracking Log
RTP	Re-engineered Test Program
RTS	relative time sequence
RTVM	requirements traceability and verification matrix
RWA	reaction wheel assembly
S	South
S&MA	Safety & Mission Assurance
SAD	solar array drive
SADA	solar array drive assembly
SAM	Systems Assurance Manager
SAO	Systems Assurance Office
SAO	Systems Acquisition Office
SAPR	Software Anomaly Problem Report
SAR	Safety Assessment Report
SAR	search and rescue
SAR	System Acceptance Review
SARSAT	Search and Rescue Satellite Aided Tracking

Acronym	Description
Sat	satellite
SAT	site acceptance test
SBC	single board computer
SBIR	Small Business Innovation Research
S/C	spacecraft
S/C F&PS	Spacecraft Functional and Performance Specification
SCCB	Software Configuration Control Board
SCD	source control drawing
SCF	Sun-Pointing Platform (SPP) Coordinate Frame
SCM	software configuration management
SCMAR	Spacecraft Mission Assurance Requirements
SCR	System Concept Review
SCTV	Spacecraft Thermal Vacuum
SD	sensor data
SDD	Software Design Document
SDP	Safety Data Package
SDR	System Design Review
SDR	System Definition Review
SDS	System Design Specification
SDVE	Software Development and Validation Environment
SE	Systems Engineer
SE	systems engineering
SEB	Source Evaluation Board
SECO	Second Engine Cutoff
SEE	single-event effect
SE&I	Systems Engineering and Integration

Acronym	Description
SEISS	Space Environment In-Situ Suite
SEL	single event latch-up
SEM	Space Environment Monitor
SEMP	Systems Engineering Management Plan
SEP	Solar Energetic Particle
SET	Single Event Transient
SET	Systems Engineering Team
SETA	System Engineering and Technical Assistance
SEU	single event upset
SFG	System Focus Group
SFT	Short Functional Test
SFTP	secure file transfer protocol
SGLS	Space-Ground Link System
SGPS	Solar and Galactic Proton Sensor
SHM	Safe Hold Mode
SiC	Silicon Carbide
SI	International System of Units (Systeme Internationale)
SI	system integration
SINDA	System Improved Numerical Differencing Analyzer
SIR (Ground Segment)	Segment Integration Review
SIR	System Integration Review
SIIS	Spacecraft to Instrument Interface Simulator
SIS	Solar Imaging Suite
SLA	Service-Level Agreement
SLA	SpaceWire Logical Address
SLCC	Satellite Launch Commit Criteria

Acronym	Description
SMA	Safety and Mission Assurance
SMA	Space and Military Avionics
SMAR	Safety and Mission Assurance Readiness Review
SMO	Systems Management Office
SMP	Software Management Plan
SMSR	Safety and Mission Success Review
SMT	Senior Management Team
SNR	signal-to-noise ratio
SOCC	Satellite Operations Control Center
SOE	sequence of events
SOH	Satellite Operations Handbook
SOMD	Space Operations Mission Directorate
SOP	Standard Operating Procedure
SOW	Statement of Work
SP	Special Publication
SPD	System Program Director
SPI	Schedule Performance Index
SPOT	System Performance and Operations Test
SPP	Sun-Pointing Platform
SPR	Software Problem Report
SQA	Software Quality Assurance
SR	status review
SRB	Standing Review Board
SRD	System Requirements Document
SRF	spectral response function
SRP	System Review Plan

Acronym	Description
SRR	System Requirements Review
SRS	Shock Response Spectra
SRT	System Review Team
SS	Space Segment
SSA	Source Selection Authority
SSGS	Spacecraft Support Ground System (GOES-N/O/P)
SSO	Source Selection Official
SSP	Sub Satellite Point
SSP	System Security Plan
SSPP	System Safety Program Plan
SSR	Satellite Storage Review
ST&C	Satellite Telemetry and Command Handbook
ST&E	Security Test and Evaluation
STAR	Center for Satellite Applications and Research
STEM	Science, Technology, Engineering, and Mathematics
STD	standard
STOP	Structural, Thermal, Optical, Performance
STS	Space Transportation System
SUVI	Solar Ultraviolet Imager
SVU	SAP Version Update
S/W	software
SW	short-wave
SWCDR	Software Critical Design Review
SWG	Safety Working Group
SWH	System Warrant Holder
SW/M	Severe Weather / Mesoscale

Acronym	Description
SWPC	Space Weather Prediction Center
SWPDR	Software Preliminary Design Review
SWQR	Software Qualification Review
SWRR	Software Requirements Review
SWTRR	Flight Software Test Readiness Review
SXI	Solar X-Ray Imager (GOES-N/O/P)
TA	Technical Authority
TAP	Technical Advisory Panel
TB	Terabyte (10E12 bytes)
TB	Thermal Balance
TBD	to be determined
TBR	to be reviewed
TBS	to be specified / supplied
TBX	to be _____
T&C	Telemetry and Command
TCS	Thermal Control System
TD	Test Director
TD	Thermal Desktop
TDAS	Test Data Analysis System
TDD	Test Design Document
TDP	Technology Development Plan
T&E	Test and Evaluation
TEMP	Test and Evaluation Master Plan
TEP	Transport End Point
TF	transfer frame

Acronym	Description
THC	Total Hydrocarbons
TID	Total Ionizing Dose
TIM	Technical Interchange Meeting
TIM	Technical Interface Meeting
TLM	Telemetry
TML	Total Mass Loss
TMM	Thermal Math Model
TMON	Telemetry Monitor
TOA	Top Of the Atmosphere
TOM	Transition to Operations Manager
ToR	Terms of Reference
TPM	Technical Performance Measurement
TPMS	Technical Performance Measurement System
TQCM	Temperature-Controlled Quartz Crystal Microbalance
TRASYS	Thermal Radiation Analyzer System
TRL	Technology Readiness Level
TT&C	Telemetry, Tracking, and Command
TRD	Technical Requirements Document
TRD	Test Requirements Document
TRR	Test Readiness Review
TV	Thermal Vacuum
TWH	Technical Warrant Holder
UDF	Universal Disk Format (used for CDs, DVDs, etc.)
UET	user education and training
UHF	Ultra High Frequency

Acronym	Description
UI	user interface
UIID	Unique Instrument Interface Document
UL	Underwriters Laboratory
UNH	University of New Hampshire
UPN	unique project number
UPS	Unique Payload Services
UPS	uninterruptible power supply
US	Under Secretary for Oceans and Atmosphere
USAF	United States Air Force
USF	User Services Functionality
USN	United States Navy
USN	Universal Space Network
USSPACECOM	United States Space Command
UTC	Coordinated Universal Time
μ sec	micro-seconds
V	volts
V&V	Verification and Validation
VAGL	Vendor-Allocated Ground Latency
Val	validation
VC	virtual channel
VCDU	virtual channel data unit
VCID	Virtual Channel ID
Vdc	Volts-Direct Current
VIS	visible
VISIT	Virtual Institute for Satellite Integration Training

Acronym	Description
VNIR	visible near-infrared
VSDE	Virtual System Design Environment
V/T	Voltage/Temperature
VTL	Verification Tracking Log
W	Watts
W	West
WAN	wide area network
WBS	Work Breakdown Structure
WCDA	Wallops Command and Data Acquisition
WCDAS	Wallops Command and Data Acquisition Station
WCE	worst-case estimate
WEFAX	Weather Facsimile
WFC	wide field collimator
WFO	Weather Forecast Offices
WG	Working Group
WI	watch item
WI	work instruction
WIFR	Within frame registration
WMO	World Meteorological Organization
WR	Western Range
WWB	World Weather Building
WXE	Wideband and Multiuse Data Link Extractor
XML	Extensible Markup Language
XMTR	Transmitter

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Acronym	Description
XRS	Solar X-Ray Sensor