Addendum 1 - Key Terms

Assembly Complete (AC) Vehicle. The on-orbit Space Station configuration exclusive of the external interfaces defined in SSP 41000, System Specification for the International Space Station.

Book Coordinator. A function that provides for the development of new documents or updates to existing documents and has the following responsibilities:

- Integrating inputs from technical experts, coordinating updates between submitters and reviewers, documenting resolutions, and maintaining the technical consistency of the document.
- Be responsible for the technical content of the document.
- Coordinating inputs, tracking communications from the IP/Ps regarding the documents (including the development of Notice of Document Changes [NDCs] for documents that affect Russia), and coordinating translations.
- Updating the document using CRs, interfacing with CM and performing DQA, in accordance with the ISS Program CM approved process and schedule.
- Coordinating and conducting coordination meetings, production and distribution of minutes and actions, tracking closures.
- Developing and making presentations to the appropriate control board/panel as required to obtain approval.
- Ensure that an electronic and hard copy of the conformed document is delivered to ERU for baseline release.

Cargo Element. A flight element that has physical and/or functional interfaces to the launch vehicle.

Change Screening Board (CSB). A change screening group that meets weekly to screen all new CRs to:

- ensure the assignment to the appropriate board/panel,
- establish change evaluation due dates,
- identify mandatory evaluators, and
- identify Change Engineers if none are noted.

The CSB also has authority to reject unacceptable or inappropriate CRs.

Control Board. A management forum which establishes and control changes to the baseline and associated documentation and provides a forum for resolving related technical and schedule issues. The specific board scope, responsibilities, authority, and membership are defined in their charter.

Control Panel. A subordinate forum to a parent control board with delegated responsibility and control as defined in their charter.

Document Quality Assurance (DQA). An administrative function to ensure documentation and documentation updates are prepared in accordance with document standards contained in SSP 50010, Standards for ISS Program Documentation.

Element. An integrated, assembled set of hardware and/or software capable of supporting an operational role such as the U.S. Lab module. It is the primary subdivision of the ISS Vehicle for purpose of accommodation in a launch vehicle.

Engineering Release Unit (ERU). A position within CM/DM that track, control, and release configuration managed drawings and documents. ERU provides a controlled archival system for all reproduced drawings and documents, including the maintenance of engineering release records.

Flight. The sequence of events that take place between lift-off and landing of a launch vehicle.

Flight Support Equipment (FSE). An item required to integrate ORU/Contingency Items into/onto the carrier used in the shuttle payload bay or any pressurized volume which is transported to orbit by a launch vehicle (e.g. adapter plates, shrouds).

Increment Definition Requirements Document (IDRD). Documentation of ISS Program requirements for the flights and increments within an increment. These include the launch dates, traffic plans, top-level manifest, resource allocations, and specific flight/increment requirements and priorities.

Increment. The time frame is defined by each crew expedition. The duration of an increment is the time period from the launch of a designated flight crew to the landing of the return vehicle for that crew.

International Partners/Participants. Those non-U.S. space agencies that formally participate in the ISS. The International Partners are the CSA, ESA, JAXA, and the Roscosmos. ASI is an International Participant.

ISS Program Offices. The programmatic organizations that report to the ISS Program Manager. Some examples of the current offices are Mission Integration and Operations Office/OC, Vehicle Office/OB, Program Integration Office/OM, etc.

Launch Package. Full complement of ISS hardware and software delivered or returned on a flight to the ISS.

Launch Package Manager (LPM). The LPM provides leadership and technical direction of teams responsible for the development, integration, readiness for flight, and on-orbit

checkout of a Launch Package. Teams led are multidisciplinary, involving systems engineering, systems and element development, verification, operations, launch processing, logistics, IP integration, and payload integration.

Master File. The contents of the Master File will contain all original signatures (e.g. Interface Memorandums [IFMs], PIRNs, DCNs, CRs, and minutes) that are associated with all ICD and specification products approved by the ICWG members and Program participants.

Mission Evaluation Room (MER). The MER provides on-console engineering support during real time operations.

Milestone Reviews. A generic term used in place of listing major programmatic reviews such as but not limited to design reviews, acceptance reviews, launch integration reviews, CoFR reviews, Pre-shipment reviews, etc. It may apply to some or all of these reviews based on the context in which it is used.

Mission Integration Plan (MIP). ISS Program/SSP joint document that captures the inter-program requirements and constraints for Shuttle operations support to ISS increment operations including ascent and descent, flight requirements for ISS Cargo Elements (CEs), and joint operations while the Shuttle is attached to the ISS.

Management Information System (MIS). A computerized information-processing system designed to keep ISS Program and other personnel apprised of the most current ISS technical, financial, workforce, schedule and operational information, including issues and risks. MIS links ISS core business issues and goals with the technical aspect of the Program.

Notice of Document Change (NDC). Process developed specifically for Russia to enable documentation updates to proceed with interim approval from the contractor while formal Roscosmos approval is pending. Form used when processing document changes with Rocket Space Corporation – Energia (RSC-E) with details all from/to changes. This process is documented in SSP 50123, Configuration Management Handbook.

Nominal. The expected value or condition, as measured in terms of functional or performance characteristics, of a component, subsystem, or system operating normally in its intended environment.

Orbital Replacement Unit (ORU). Equipment that may be removed from the on-orbit ISS and replaced with a like unit for maintenance activities.

Orbital Replacement Unit Data Dictionary (ORUDD). The ORUDD is a web portal that accesses ORU data within existing ISS Program approved data repositories, such as Vehicle Master Database (VMDB), Hardware History Retrieval System (HHRS), and Problem Reporting and Corrective Action (PRACA).

Orbital Support Equipment (OSE), An item required to support flight hardware in the on-orbit ISS. OSE items are required to accommodate integrated assemblies used to deliver ORU/Contingency Items to/from on-orbit worksites and on-orbit storage locations (e.g. micro-meteoroid debris protection).

Payload. If not otherwise modified, "payload" in this document refers to an ISS Program scientific or technology payload. Also referred to as utilization or experiment.

Program authorized repository. A NASA owned database/repository that is accessible by all ISS Program participants.

Resources. Identifies a particular subset of ISS on-orbit capabilities used in support of system and utilization operations (e.g., power, heat rejections, communications, crew time, etc.)

Return to Service. The time between when a computer or system fails or becomes unavailable and the time when the system has been repaired or restored and is available again to users.

Secretariat. A senior CM person supporting configuration control boards/panels as the CM representative. Responsibilities include controlling the flow/schedule of the meeting, ensuring all actions are properly captured, reviewing meeting minutes, ensuring any change paper requiring signature is signed if approved, and answering any CM specific issues or questions.

Segment. A grouping of elements that are functionally related and often physically interface (e.g., U.S. On-Orbit Segment or U.S. Ground Segment).

Stage. The on-orbit configuration of the ISS after each flight that adds capability to the ISS. This can also refer to a designated period between launch vehicles defined by the ISS Program for requirement documentation and planning purposes.

Strategic Flight Program. The Strategic Flight Program is a strategic integrated plan for the assembly sequence, EVA plan, integrated flight schedule of all vehicles docking to the ISS Vehicle, crew rotation plan, and the cargo element flight assignments in the strategic timeframe.

Strategic timeframe. Long term planning that generally transitions to the tactical timeframe approximately two years prior to the flight or real-time operations.

Sub-element Number. The Sub element Number is used to track data in the VMDB for cargo elements, delivered on a carrier, visiting vehicles (other than the Orbiter), and any individual items that is deploy/retract, rotate/translate, or any major item that relocates

from the original installed location and can have a significant impact to the ISS mass properties.

Subsystem. A functional grouping of components that combine to perform a major function (e.g., electrical power, attitude control, propulsion, etc.).

Sustaining Engineering. Sustaining Engineering (SE) is the design engineering expertise provided after the development of hardware/software items is completed and these items have been provisionally accepted.

Systems Analysis. The performance of integrated, multidisciplinary engineering and analysis to assure:

- the required performance or survival of subsystems before, during, and after installation on-orbit,
- the minimized consumption of expendable resources,
- the optimization of Program goals for schedule and scientific requirements,
- the meeting of constraints and requirements of attached, approaching, and, departing vehicles, and
- the continued performance of all of the above in the induced and natural environments, which pertain to the ISS under well defined, operating regimes and assumptions.

Systems Analysis is complementary to, does not duplicate, and requires syntheses of data from: subsystems engineering, specialty engineering, and sustaining engineering, which are maintained under the ISS Sustaining Engineering Contract and in some cases under separate Government contracts and internal capabilities, as specified.

Tactical timeframe. A period of time from approximately 2 years prior to the launch or real-time operations.

Technical Interchange Meeting. Meetings between two or more ISS Program technical teams to exchange information, develop processes, and work issues.

Validation. The process of formally approving the developed process, services, or products at the conclusion of operational test and evaluation. This approval indicates developed processes, services, or products satisfy their intended operational mission.

Vehicle. The Vehicle includes the whole, integrated, on-orbit station (including hardware and software) as it exists today and the future station configuration as it evolves to the Assembly Complete (AC) configuration. The vehicle configuration is defined by the particular point in time under assessment or discussion.

Verification. The activities which assure that each level of requirements (including test requirements) or specifications correctly echoes the intentions of the immediately superior level of requirements.