

# International Space Station (ISS) Commercial Resupply Services 2 (CRS2) Draft Request for Proposal (DRFP) NNJ14507542R Questions and Answers Posting #2

1. Q. Are there penalties associated with failure to satisfy the agreed-to schedule or will the schedule simply be renegotiated as per CRS-1.  
A. The schedule will be renegotiated according to clause II.A.3 Adjustments to Mission Schedule which allows for equitable adjustments in the event of a mission slip beyond 30 days.
2. Q. For the Optional Capability for Accelerated Return, are there a per flight range of minimum and maximum mass since none is listed or it is simply being able to accommodate the 2-6 powered lockers requiring R+6 hour access, the 2-6 bags of conditioned stowage, the 2-10 CTBEs, and the 1-2 powered lockers with R+3 hour access? Are all of these items additive or what is the minimum and maximum manifest of these items? Please clarify.  
A. As stated in the note under Accelerated Pressurized Return Downmass: "Consisting of the same requirements as Pressurized Return Downmass with the following modifications". The number of lockers and conditioned stowage bags and CTBE's listed are in lieu of the items in the Pressurized Return Downmass section and the request is for all of the different types of capabilities (powered lockers with R+6 and R+3 hour access, conditioned stowage and CTBEs.) The total number of lockers required would be 6 – either all as R+6 hour access or as a mix of R+3 and R+6 hour access. The subset of cargo that is Accelerated Pressurized Return does not have to reenter on the same vehicle or at the same time as the remaining pressurized return.
3. Q. How are the benefits of reusability going to be considered? In the answer to the Draft RFP question 15 where you state "minimize offeror price by having standard vehicles that could be produced repeatedly" and through a similar statement made during the Pre-Solicitation Conference on 8/7/14, it appears you are focused on expendable vehicles and not considering the benefits of reusability.  
A. It will be at the offerors discretion to propose the use and benefits of its proposed approach, whether that approach entails a reusable vehicle or one that is expendable. The information would be evaluated with other information of how an offeror would be able to provide the best value to the Government in accordance with the RFP.
4. Q. During the Pre-solicitation Conference it was mentioned that a motivation in CRS2 is to reduce the traffic at ISS from 14-15 visiting vehicles to 10-11 visiting vehicles per year. In that reduced scenario, how many CRS2 flights are you considering (it has been stated 4), how many crew flights are you considering (CCtCap stated 2) and how many Russian vehicles going to the station? It is helpful to better understand this preferred traffic model if it is all specified. Is the cargo required to be brought up with crew flights being considered in the overall ISS requirements?  
A. The expectation is for 4 crew flights (2 Russian, 2 US), 3-4 Progress flights, 0-1 HTV, and 4-5 CRS2 flights. The cargo brought up with the crew flights is being considered in the overall ISS requirement but is very small compared to the CRS2 cargo need.

5. Q. At the Pre-solicitation Conference, when discussing chart 32 and the bullet that states "The only crew interaction with the vehicle shall be during the period when the vehicle is mated to ISS " Marybeth stated "in other words we don't want a pilot on a cargo flight.." Can you please explain why no piloted flights are being considered?  
A. NASA's desire to not have crew on the cargo flights stems from the higher levels of safety and oversight required on crewed vehicles. Additionally, on crewed flights, upmass is required for life support systems to support the crew, abort systems, etc., which takes away from the upmass capability of the vehicle for cargo.
6. Q. STATEMENT OF WORK Section 2.0.5 states: "The contractor shall be able to capture, berth and release at both locations (Node 1 Nadir and Node 2 Nadir) or dock to both locations (Node 2 Forward and Node 2 Zenith) defined in SSP 50808. Please clarify that capture and release at Node 2 Nadir with SSRMS translation to and from Node 1 Nadir meets the intent of this requirement.  
A. Yes, this meets the intent of the requirement for capture. However, release of a vehicle from Node 1 with a vehicle at node 2 nadir is acceptable. RFP will be clarify.
7. Q. VI.A.18 PROPOSAL PREPARATION – GENERAL INSTRUCTIONS, Section (b) (2) PROPOSAL CONTENT AND PAGE LIMITATIONS, Recognizing the intent to update the proposal page limitations for the Mission Suitability Volume to an undivided page limit for Technical and Management Subfactors, the Contractor requests that the page limitations for the Mission Suitability Technical Appendix and Management Appendix also be updated to be unlimited.  
A. NASA will evaluate the request.
8. Q. CLAUSE II.A.2.3 MISSION SUCCESS DETERMINATION, INVESTIGATION, AND CORRECTIVE ACTIONS, Paragraph 2.3 Procedures, Contractor recommends the mission success criteria for the last two milestones be clarified as separate from one another. The "Cargo Delivery" milestone and "Mission Completion" milestone each have their own set of success criteria.  
A. NASA has clarified in the final RFP.
9. Q. CLAUSE II.A.2.3 MISSION SUCCESS DETERMINATION, INVESTIGATION, AND CORRECTIVE ACTIONS, Paragraph (c) and Page 178, DATA REQUIREMENTS DESCRIPTION CRS 5-3 Post Flight Report: Contractor recommends that DRD CRS 5-3, Post Flight Report, only be required in the event of a mission failure. Many of the elements of this report, as required in the Data Requirement Description, can be included with the Post Delivery Assessment (DRD CRS 5-1) and Post Mission Assessment (DRD CRS 5-2). Requiring another "post mission" report adds unnecessary costs to the program and should only be required in the event of a failed mission.  
A. NASA will evaluate the recommendation.
10. Q. Question 17 and Response from ISS CRS2 DRFP NNJ14507542R Questions and Answers Posting #1 and Draft RFP Table I.A.3-1. Please confirm that NASA's response to this question (#17) means the 24 hour scrub turnaround requirement will be deleted.  
A. The scrub turn around requirements are specific to each payload. Some payloads may have 24 hour scrub turn around requirements. The Contractor's processes and capabilities to handle scrub turn around are to be described in their Mission Integration and Operations Management Plan and will be evaluated as part of that document.

11. Q. Question 54 and Response from ISS CRS2 DRFP NNJ14507542R Questions and Answers Posting #1. In response to this question, NASA stated that the offeror has the ability to propose additional milestones. Would NASA accept additional milestone payments at the Task Order level and not just at the Mission/Work Plan level?
- A. No, NASA is requesting milestones at the mission level to be able to evaluate mission prices.
12. Q. What is meant by "easily auditable by NASA"? This is referenced in CRS 2-2 under Data Requirements, section (b).
- A. NASA will clarify the RFP. The intent of this statement was to ensure the schedules were in a format that NASA could read, namely MS Project, as stated in the DRD format section.
13. Q. What are the requirements/limitations for firing or venting RCS thruster systems while docked/berthed at the ISS, or near the ISS, and where do these requirements reside?
- A. The requirements on a visiting vehicle for firing jets and venting in proximity operations or while attached to the ISS are documented in SSP 50808. The specific requirements are 3.2.2.6.4.5.2 COTS Plume Impingement Pressures on ISS, 3.3.10.1 Vehicle Plume Heating on ISS and 3.3.10.2 COTS Vehicle Contamination of the ISS (which includes plume impingement and venting). Additionally, if a visiting vehicle needs to fire a thruster while berthed/docked to ISS structural loads and guidance, navigation and control analysis will be required.
14. Q. Please confirm our understanding of the following, During the 8/7/14 Pre-Solicitation conference call, we believe we heard Marybeth specify that this requirement applies for a 30-day launch period. This would then require the contractor to provide launch attempts for 2 out of every 3 days, as applied to a 30-day launch period, resulting in launch attempts for no less than 20 days in the 30 day launch period. We then believe Marybeth said that as the launch period is subsequently reduced to less than 30 days as the actual launch date is approached, the contractor will not necessarily be required to launch on 2 out of every 3 days for launch periods less than 30 days in duration.
- A. No, this is incorrect. It is NASA's intent that no matter the length of the launch period (30 days or 14 days) that the Contractor be able to launch 2 out of every 3 days.
15. Q. Please confirm our understanding of the following, whether for the 30-day period or shorter periods as the actual launch date is approached, our interpretation is that launch attempts do not need to be provided for 2 out of every 3 consecutive days within the period. In other words, for the 30-day period, it is permissible to have a limited number of occurrences where 2 consecutive days do not provide a launch attempt.
- A. No, it is not permissible to have a limited number of occurrences where 2 consecutive days do not provide a launch attempt.

16. Q. Please confirm our understanding of the following, it is interpreted that the TBD launch window that is referenced in the bullet on page 33 of the CRS2 Pre-Solicitation Conference slides pertains to the duration of the launch window (to be specified by the contractor in minutes and seconds) that occurs for each day of the launch period where a launch opportunity is available. For the contractor's specification of this TBP launch window on day of launch, we envision that the contractor is being asked to specify the average duration of the launch window that exists for the 20 of 30 days when a launch opportunity is provided so that NASA will get an indication of the robustness of the launch attempts provided by the contractor.
- A. The TBD on the CRS2 pre-solicitation charts was intended to mean the 30 day launch period and the 14 day launch period. It was not intended to request any information from the offeror about the length of their launch period on a given launch date.
17. Q. Question 62 and Response from CRS DRFP NNJ114507542R Questions and Answers Posting #1, In response to this question, NASA stated "If the cost of US acquisition, integration, test and operations are required to produce or manufacture the end product, then they would be included in the calculation of the domestic cost requirement." Based on your answer, will NASA amend IV.A.1 MINIMUM REQUIREMENTS, subparagraph 1.2, to reflect these production or manufacturing costs as being included in the calculation of the end product?
- A. No, the Minimum requirements are defined. The determination of if an offeror meets the minimum requirements in this section is not made by NASA but by OSTP and OMB.
18. Q. Please confirm whether it is intended that the Contractor provide the maximum per standard mission capabilities for each line item when completing Table I.A.3-1 such that the sum of the potential capacity may exceed the total vehicle capacity, or alternatively please advise how any available stowage "trades" should be reflected in the table (e.g. the mission could either transport X M01 bags or Y M02 bags, or certain combinations thereof, but not both).
- A. Yes, the contractor should provide the maximum per standard mission capabilities for each line item that they can deliver, even though the sum of potential capacity may exceed the total vehicle capacity. The contractor should identify what "trades" (M03 for an M01 and M02) can be made. The total number of CTBE for the standard mission should be identified in the proposal. NASA will clarify the table and instructions.
19. Q. In Section II, please reconsider the deletion of 52.212-4(p). There are potential liability scenarios that are not covered by the Cross-Waiver of Liability for International Space Station Activities.
- A. The Cross-Waiver of Liability for ISS Activities is being modified similarly to what was done in CRS1 and CCTCAP for these other liability scenarios.
20. Q. Section II.A.2, 2.1(b) states that the "final payment" is defined in II.A.1, 1.3. However, 1.3 is a payment constraint. Please clarify.
- A. This has been clarified in the final RFP.

21. Q. Are the delivery and mission completion milestones both deemed separately to be a final payment? II.A.2, 2.3 supports this interpretation.
- A. This has been clarified in the final RFP.
22. Q. Section II.A.2, 2.2(b) states that the contractor shall submit the relevant data for mission success at the Mission Integration Review. Should this refer to the Post-Mission Review?
- A. No, at the MIR, the Contractor shall submit the list of data which is relevant for the mission success determination. The data is delivered at the Post-Mission review but the determination of which data will be used is made before the mission at the MIR. This will be clarified in the final RFP.
23. Q. For section II.A.2, 2.3(a), is the omission of partial mission success for delivery intentional or an oversight?
- A. Yes it was an oversight, this will be corrected in the final RFP.
24. Q. What is the purpose of adding final acceptance in II.A.2, 2.6? Are any milestone payments tied to final acceptance?
- A. There are no milestone payments tied to final acceptance. The purpose of the paragraph is to accept the entirety of the service mission and recognize that all milestones are completed.
25. Q. For Table II.A.3-1, in order to allow for both NASA and contractor flexibility early in the mission integration phases, we request a standard 90-day launch window between ATP and MIR. Then at L-12 months, the launch window is narrowed to a 30-day window. This is more in line with standard commercial practices.
- A. NASA will evaluate the recommendation.
26. Q. For section II.A.5, 5.1 and 5.2, what does NASA consider "significant resources"?
- a. Will NASA provide the contractor notice when contractor objectives will have a significant impact and an estimate of value required from an equitable adjustment?
- A. Language will be updated in 5.1 and 5.2 to clarify that any resources required from NASA, not just "significant" resources, may be charged against an equitable adjustment.
27. Q. Section II.A.9 refers to 41 USC 255(f). This provision has been recodified as 41 USC 4505. Please confirm the proper citation.
- A. 41 USC 4505 is the proper citation. The RFP will be updated to reflect the change.

28. Q. Section II.A.13, 13.3(a) states that "prior to the issuance of a request for proposal applicable to a Task Order, exchanges and fact-finding may take place with Contractor(s)." Since this could require a significant amount of contractor labor hours, can a contractor opt out of such exchanges if it has used a specified amount of labor hours? This would help the offerors appropriately cost a currently open-ended activity.
- A. Opting out of such exchanges prior to the resolution of any discussion items in a proposal would not be in the best interest of the Government. NASA does not intend to put a limit on hours expended by an offeror.
29. Q. Section II.A.19 (NASA Insight and Approval) conflicts with section II.A.5 (Contractor Objectives). For contractor objectives, the contractor must notify NASA at the Vehicle Baseline Review. For planned evolution, the contractor must notify NASA at a Program Review prior to VBR. Planned evolution, however, may include contractor objectives. We request modifying II.A.19 to require notification to NASA no later than VBR for any planned changes since that review defines the vehicle baseline.
- A. NASA has updated the RFP per the recommendation.
30. Q. Section II.A.19 has a section titled "Vehicle Production Insight - recurring." Does this only refer to the Launch Vehicle? Insight into the orbital vehicle appears to be covered by other provisions.
- A. Yes, it only refers to Launch Vehicle. NASA will clarify wording in the RFP.
31. Q. Section II.A.19, 19.2 states that "NASA will retain approval authority over portions of the resupply service that interface with ISS, hardware, cargo and operations." Please describe what activities are included in "operations."
- A. "Operations" in this statement means operation of the ISS.
32. Q. Section II.A.19, 19.2 provides for NASA approval authority over "items in Clause II.A.5, Contractor Objectives on ISS Resupply Service Missions." Please define the "items" subject to NASA's approval authority.
- A. NASA will clarify the wording in the RFP.
33. Q. Regarding section II.A.26(b), while the Jet Propulsion Lab uses the term "Task Plan" in its Reimbursable Space Act Agreements (RSAA), NASA centers don't use this term in their RSAAs. Please clarify if anything in this clause prohibits the use of either Reimbursable Space Act Agreements, Non-reimbursable Space Act Agreements, or Commercial Space Launch Agreements/Subagreements. If not, we strongly request the use of these agreements (or whichever of these agreements is allowable) be expressly permitted in this paragraph. This paragraph is in the CCtCap model contract without such clarification and at least one major NASA center interprets this clause as prohibiting the use of an RSAA in furtherance of CCtCap. If this clause is intended to exclude use of the other transaction agreements authorized by the Space Act of 1958, please provide statutory based rationale for this exclusion and provide the agreement mechanism the Contractor shall use.
- A. Section II.A.26(b) provides a new method within the framework of the CRS2 contract for a contractor to obtain access to services or other support from a NASA center specifically related to the performance of this contract. If a contractor chooses to use a NASA center's resources as part of its approach to performing the contract, the contractor and the NASA center must

negotiate that under a Task Plan. Performance under the Task Plan is governed by the terms of the CRS2 contract, whereas a Space Act agreement or Commercial Space Launch Act agreement are stand-alone arrangements with their own terms and conditions. If a contractor receives support from a NASA center already through a Space Act agreement or a Commercial Space Launch Act agreement/subagreement, that support may continue separate from the CRS2 contract to the extent it is being provided to enable activities the contractor has outside the scope of CRS2. Pursuant to II.A.26(b), any contractor's use of NASA center resources in support of CRS2 work will be done under Task Plans. A determination to use another type of agreement instead of a Task Plan will have to be made after CRS2 contract award based on the specific details of the NASA center work to be provided.

34. Q. In section III, FAR 52.222-53 should not apply because neither of the conditions in 22.1006(e)(4) apply. Specifically, (1) the solicitation does not include 52.222-53 and 52.212-3(k)(2) is not checked; and (2) this is not a resulting contract, nor does 22.1003-4 apply to this solicitation.

A. 52.222-53 does not apply and will not be included in the RFP.

35. Q. Regarding Table I.A.3-1 and SOW 2.0-2.5: Please clarify what is required in every standard mission vs. required in the complement of standard missions. The draft RFP states that a contractor could build one vehicle that is pressurized only and another that is unpressurized only. Table I.A.3-1 also states that "Offerors can meet the required and optional capabilities by mixing them in any manner they choose within their 4 standard missions." VI.A.22(a) states that "The Offeror shall propose and price at least one and up to four standard mission types, whose complement address the required capabilities of pressurized upmass, pressurized return or disposal, and unpressurized upmass and disposal." However, that means that on a given flight, the contractor would not meet the "shall" statements of either 2.1 or 2.5.

- a. Could a Contractor split the minimum 2500 kg of pressurized mass into 1250 kg on Standard Mission A and 1250 kg on Standard Mission B? This would be similar to how a Contractor is allowed to fly 2500 kg of pressurized mass on Standard Mission A and 0 kg of pressurized mass on Standard Mission B (because Standard Mission B for this Contractor is unpressurized cargo only).
- b. Should Table I.A.3-1 be interpreted as the cumulative, annual capabilities of an offeror's standard missions?

A. No single capability is required in every standard mission. The complement of all standard missions offered must provide all of the required capabilities on at least one standard mission. So, it is correct that on a given flight, the contractor would not meet the requirements of either section 2.1 or 2.5 if their standard mission was completely pressurized or completely unpressurized.

No, the contractor could not split up the minimum 2500 kg of pressurized cargo into multiple Standard Missions to meet the minimum requirement. There must be a single mission that could fly 2500 kg of pressurized cargo.

No, Table I.A.3-1 is not the cumulative, annual capabilities of an offeror's standard missions. Each column in Table I.A.3-1 is the capabilities of a single flight of that Standard Mission type.

36. Q. SOW 2.0.6 requires C2V2. C2V2 capability is only required for crewed vehicles in SSP 50808 Rev E. Why is this being required for cargo vehicles? Could one Standard Mission use a different communication system if another Standard Mission used C2V2?
- A. The SOW for this contract requires cargo vehicles to have C2V2 capabilities to maintain commonality for ISS systems. All Standard Missions are required to use C2V2.
37. Q. The requirements for pressurized delivery upmass as stated in SOW 2.1 appear to state that offerors that want to offer pressurized delivery up mass must be able to deliver at least 2500 kgs in no less than 185 CBTEs (assuming a density of 74 CBTEs per 1000 kgs). None of the domestic, flight proven vehicles are believed to meet the mass and CBTE quantity specifications simultaneously.
- a. Will proposals that cannot meet the minimum mass requirement and the density requirement simultaneously be deemed non-compliant and excluded from further evaluation?
- b. Could the volume be split across multiple Standard Missions? If not, this would seem conflict with the requirement that offerors may propose an only-pressurized and an only-unpressurized vehicle.
- A. The requirements for a standard mission that contains pressurized upmass are required to provide a minimum of 2500 kg and 74 CTBEs/1000 kg (the # of CTBEs/1000kg may be lowered to 65 in the RFP). Proposals which do not meet the capabilities requested will be evaluated according to the criteria described in Section VII.B section T1. The volume cannot be split across multiple standard missions. If a capability is not offered in a standard mission, it is to be listed as N/A on that mission.
38. Q. SOW 2.1.2.1.2 states that "the service shall be able to accommodate ... At least six and up to 100 M-02s per flight." Is this intended to be 10 instead of 100? Otherwise the M-02 weight would exceed the maximum pressurized mass requirement.
- A. No, the maximum was intended to be 100 M-02s because we did not have a requirement for a maximum number of M-02 bags, we just wanted as many as possible. Also, the M-02 bags may not be filled to their maximum weight. NASA will evaluate this requirement and determine if a different maximum is more appropriate or reword to clarify the intent.
39. Q. For SOW 2.5.4, does a "Contractor-unique direct mount interface" include FSE the contractor must provide to accommodate non-FRAM-based cargo?
- A. Yes.
40. Q. Regarding SOW 2.5.4 and Attachment V.F, is the contractor expected to be able to provide all of the types of Flight Support Equipment listed in Attachment V.F. as part of the Standard Mission? Non-defined hardmount FSE could take a significant amount of time to develop and could cost on the order of millions of dollars. For the government to avoid paying for this non-recurring engineering on multiple missions (contractor has to assume unique FSE every flight to be safe), NASA could limit the contractor-provided FSE to standard, pre-defined FSE types. Then unique hardware could be developed under a task order. Additionally, the contractor must be informed

about the unpressurized manifest several months to 1-2 years prior to the required delivery date, depending if the FSE is standard or new. This is not clear in 2.9.2 (f).

A. No, the contractor is not expected to provide all types of FSE as part of the standard mission. We have rewritten this part of the RFP.

41. Q. Regarding SOW 2.9.1.2, for most orbital vehicles, both CG (center-of-gravity) and mass are critical parameters for safety and mission assurance. While there should be a limit on overall mass variability because that affects performance, the Contractor also recommends placing a limit on the variation of CG. Contractors could provide allowable CG boxes that cargo manifests must stay within.

A. NASA will update the RFP per the recommendation.

42. Q. SOW 2.9.2(a) requires an "unpressurized cargo Interface Control Document (ICD) for items mounted on the unpressurized carrier as identified in the MRAD" at L-14 months. However, the MRAD is not due until L-10 months. Please clarify this requirement.

A. NASA will clarify in final RFP.

43. Q. SOW 2.11.1 states, "The Contractor shall provide NASA with full-rate data and reports in accordance with the DRD CRS 5-1 and DRD CRS 5-2, for each mission flown by the launch vehicle or orbital vehicle on CRS2 and non-CRS2 missions, to the limit that other flight data may be government classified or customer proprietary." We request removing the requirement for non-CRS2 missions. Instead, NASA could request data from those missions. The requirement as currently written would significantly increase costs, and full rate data would be sent for many missions that may not apply to CRS2.

A. NASA will evaluate the recommendation.

44. Q. For SOW 3.2, we request that the Contractor's initial assessment be completed within 2 weeks of notification instead of 1 week. Often times, program management must consult with multiple engineering disciplines to determine if a change is Category A or Category B. Depending on workload, 1 week may not be feasible.

A. NASA will update in the final RFP.

45. Q. For SOW 4.1.1, the items in (a) are covered at all technical reviews and ISS Integration Milestones, if applicable. Why are they duplicated in Program Reviews? Since ISS Integration and closure is usually focused to a particular mission, we recommend removing this as a requirement.

A. They are duplicated in the program reviews because different levels of management attend the different reviews. Generally at program reviews, only the major issues are covered.

46. Q. For SOW 4.1.1, since the action items described in (f) will have been covered at previous technical reviews, why is it necessary to repeat them at Program Reviews unless there are major issues?

A. It is necessary to repeat them because different levels of management attend the different reviews.

47. Q. SOW 4.1.2 states that "Technical Reviews shall be held serially with Program Reviews." Please clarify the meaning of this sentence.

A. NASA will clarify in the final RFP.

48. Q. For DRD CRS 2-3, items 5, 11, 12, and 13 have duplicate information. Item 5 is acceptable without change. For items 11 and 12, we recommend an initial coupled loads analysis (at L-10 months) and a final coupled loads analysis (at L-3 months). In addition, we recommend an initial environments analysis (at L-10 months), an updated environments analysis (at L-3 months), and an updated environments analysis (at L-1 month). We recommend including item 13 as part of the thermal analysis for contamination described in item 5.
- A. NASA has updated in the final RFP.
49. Q. For Attachment V.M, please clarify exactly which of the services and facilities in this attachment are required if the Contractor launch site is located in close proximity (within 30 minute drive) to KSC. Additionally, if the launch site is not located within close proximity to KSC, are all of the facilities requirements listed in Attachment V.M required? They are not specified as "shall" statements. If the Contractor has to add laboratories, animal care accommodation, and ISSES, this will significantly drive costs.
- A. If the Contractor launch site is located in close proximity to KSC, then clause II.A.25 (d) can be used. If the launch site is not located within close proximity to KSC, then all of the facilities in Attachment V.M are required. Attachment V.M is being reviewed to ensure the minimum set of requirements is included.
50. Q. In section VI.A.18, please make references to the use of Microsoft Office 2010 consistent throughout, eliminating more generic reference to "software versions."
- A. This will be updated in the final RFP.
51. Q. In section VI.A.18, in some instances, the volumes are referred to as "volumes"; in others, they are referred to as "proposals." Please use a consistent term throughout to avoid any confusion.
- A. This will be clarified in the final RFP.
52. Q. Please identify, in the table in section VI.A.18(b)(2)(vi), which volumes require cross-reference matrices, glossaries, and acronym lists.
- A. The reference matrices should be provided with each volume, glossaries and acronym lists should be provided as needed with each volume depending on the offerors proposal content.
53. Q. Regarding section VI.A.18, for each volume that requires a separate glossary and acronym list, we suggest these two lists be combined into a single document.
- A. You may combine the two lists.
54. Q. Both sections VI.A.18(b)(1)(iii) and VI.A.18(b)(2)(ix) contain instructions on labeling electronic copies. We suggest combining these instructions to avoid discrepancies.
- A. This will be clarified in the final RFP.
55. Q. Section VI.A.18(b)(1)(iv) refers to Section VI. Please correct this to Section VII.
- A. This will be corrected in the final RFP.

56. Q. The table in section VI.A.18(b)(2)(vi) lists "Cover Page and Indices" as a part of the Mission Suitability Volume. What should be included as indices?
- A. This reference was not in the correct location. The RFP will be updated to clarify.
57. Q. In section VI.A.18(b)(2)(vii), page specifications appear in separate places on pages 224 and 225. We recommend combining these requirements to avoid any potential discrepancies.
- A. This will be clarified in the final RFP.
58. Q. Section VI.A.18(b)(2)(vii) refers to "tabs and dividers." Please clarify the distinction between tabs and dividers.
- A. There is no particular distinction between tabs and dividers. Either can be considered inserts between proposal sections that do not contain material proposal information (e.g. header stating "Technical Appendix").
59. Q. Section VI.A.18(b)(2)(vii) refers to "subsections." Is "subsection" analogous to the subfactor headings (T1, T2, M1, M2, etc.) in section VI.A.21?
- A. Yes.
60. Q. Section VI.A.18(b)(2)(vii) refers to cross-reference matrices. Section VI.A.18(b)(2)(xii) refers to Cross Reference Lists. Please clarify the difference between the matrices and the lists.
- A. There is no difference. The wording will be updated to using only the word lists.
61. Q. For section VI.A.18(b)(2)(xii), please provide a sample table format to follow for the cross-reference list. Also, we suggest changing "the paragraph numbers in the Government's instructions" to "pertinent section(s) in the Government's instructions."
- A. NASA will evaluate the recommendation.
62. Q. Regarding section VI.A.19: we request an extension to the due date for proposals. The award of the Commercial Crew Transportation Capability (CCtCap) contract will affect the proposals of offerors that submitted proposals for CCtCap. However, based on the current due date, offerors will need to begin writing their proposals before CCtCap award. The CCtCap award could require an offeror to rewrite its entire proposal. In this case, 45 days is not sufficient to ensure the government receives a thorough proposal that best meets all the requirements in the most cost-effective manner.
- A. As the CCtCap award has been announced, NASA does not intend to extend the due date.
63. Q. Section VI.A.20 instructs offerors to return section IV, but it also states that offerors should return the model contract through section III. Please clarify if the model contract should be submitted through section III or IV.
- A. The model contract is through section III. Section IV is due with the proposal, but is not considered part of the model contract.
64. Q. Regarding section VI.A.21: On page 232, the instructions for the small business subcontracting plan refer to Individual Subcontracting Reports and contract-specific subcontracting goals. These are inconsistent with a commercial plan, which FAR 52.219-9(g) identifies as the preferred type of

subcontracting plan for commercial items. Because this is a commercial-item procurement, may an offeror propose a commercial plan?

A. Offerors may submit any type of subcontracting plan (Master, Commercial, or Individual) that they think is best. We will evaluate the plan according to FAR 19.704 Subcontracting plan requirements.

65. Q. Regarding section VI.A.21: FAR 52.219-9(g) provides that once the government has approved a contractor's commercial plan, the government will not require another subcontracting plan from that contractor while the plan remains in effect. How will NASA evaluate an offeror's subcontracting plan if it submits an already-approved commercial plan which includes goals that are lower than those described on page 232?

A. NASA will ensure that the plan meets all of the requirements in FAR 19.704 Subcontracting plan requirements. The government will not require another subcontracting plan from the offeror.

66. Q. For section VI.A.23, may an offeror provide administrative information for relevant contracts and agreements in a table rather than a narrative format?

A. The narrative information may be provided in a table.

67. Q. Regarding section VII.A.: NASA indicated in Question and Answer #41 (posted on August 7) that the capabilities of a vehicle will not be evaluated in the pricing evaluation but will be assessed for the T1 subfactor (System Capabilities and Summary of Performance). In addition, the evaluation factors state that price is more important than mission suitability (and technical approach represents 65% of mission suitability). Please clarify how NASA intends to ensure an equitable evaluation of total price consistent with the relative order of importance of evaluation factors for missions that include additional capabilities beyond the single pressurized upmass performance criteria. The response to Q&A #41 suggests that unequal weighting may be applied to the price evaluation for vehicles with additional capabilities.

A. The SSA will make a best value decision using a trade-off process as described in FAR 15.101-1 in selecting the best contractor(s) to fill the needs of NASA as described in the RFP. The price evaluation will be weighted relative to other factors in accordance with Section VII.A.3 Relative Order of Importance of Factors.

68. Q. Will the Government consider deleting inclusion of Alternate I of FAR 52.245-1 Government Property for contractors which have a Government approved property management system that is determined to be adequate by the Government?

A. NASA does not intend to delete the use of Alternate I.

69. Q. In the initial set of question responses provided by NASA on August 7 a "No" answer was given to question No.47, provided here: "Would a lapse in the indemnification provisions of the CSLA, during the period when a mission is actually performed, result in a material change to contract subject to equitable price and performance adjustment?" In the event the indemnification provisions of the

CSLA should lapse during the period of the contract, the contractors would have to rely on commercial insurance policies for launch and in-orbit operations to cover their exposure up to their maximum policy limits, causing the contractors to incur additional premium costs. In light of this situation please provide an explanation or clarification for the government's prior response to this question.

A. A lapse in the indemnification provisions of the CSLA would not result in a material change to the contract since the requirements levied by the CRS2 contract would remain the same. In the event a lapse in the indemnification provisions of the CSLA actually occurs, NASA would be open to discuss concerns that arise at that point in time.

70. Q. Is the Past Performance data requested in paragraph (h) of Section VI.A.23 (pg. 240) limited to the relevant Past Performance Programs that will be cited in our proposal? If not, please provide more concise guidance.

A. This is not limited to the relevant Past Performance Programs cited in your proposal. The RFP will be updated to clarify.

71. Q. CRS 2-3 contains the requirement to include a guaranteed environment during flight as part of the Verification Loads Analysis. What criteria does NASA require to define 'guaranteed' environments, and how would those criteria compare to maximum expected limit loads to some level of non-exceedance with a probability?

A. NASA will clarify in the final RFP.

72. Q. For LON mission capability, does "planned for the next mission" represent the offeror's next standard mission or the standard mission that the LON would replace? If the latter, how does the offeror price the LON mission capability? Suggest adding a pricing table for LON capability. How does a LON mission affect the minimum quantity ordered (6 missions)?

A. NASA will clarify in final RFP.

73. Q. How will the sum of CLIN 0001 mission prices from 2017 through 2024 be evaluated between offerors when there is no requirement to bid all years?

A. Offerors are required to offer fixed prices for all years of the contract. VI.A.22 (b)(3) states "The offeror shall price all years of the contract from 2017 to 2024 in dollars per mission."

74. Q. Will NASA consider a mix of return downmass and disposal downmass for the 2,500kg pressurized downmass requirement?

A. Yes, NASA will consider a mix of downmass as long as the total mass being removed from ISS is at least 2,500 kg. NASA will clarify the final RFP.

75. Q. In document SSP 50833 Rev A, states airflow requirement for a single Mid-Deck Locker (MDL) is 12-36 CFM or 24-36 CFM for a double MDL. Is it correct to assume the airflow is required to be somewhere within that range and is fixed for a given flight or does it need to be adjustable within that range for a given flight? Also, is the maximum flow for a single MDL correct (at 36 CFM)?

A. Yes, it can be fixed for a given flight. Yes, up to 36 CFM for a single MDL is acceptable.

76. Q. dRFP Attachment V.A. (SOW) paragraph 2.5.5 states access to unpressurized cargo shall be provided within L-8 days for final preparation as defined in SSP 50833. There is no reference to late access to unpressurized cargo in SSP 50833.

A. SSP 50833 is being updated to reflect the unpressurized cargo requirements and will be provided in the technical library upon release of the RFP.

77. Q. Mass Properties Data Deliveries – The number of deliveries and delivery dates specified for DRD 4-4 (Mass Properties Data) in Table V.B-4 (pg 119) do not match what is specified in DRD 4-4 (pg 172).
- A. NASA will clarify in the final RFP.
78. Q. Changing Applicable Spec Documents – Attachment V.K (pg 199) lists the Applicable Documents with rev letters. However, the key requirement documents in this table are specified with rev letters plus DCNs (i.e., SSP50108, SSP 50808 & SSP 50964). This requires Bidders to bid to a changing set of requirements. Additionally Bidders have no notification when new DCNs are added. Will NASA update this table with the final RFP to provide a firm set of requirements for Offerors to bid to? Additionally, can NASA make available to Bidders the ongoing approved DCNs during this time leading up to proposal submittal?
- A. The table of Applicable Documents will be updated prior to release of the final RFP to provide a firm set of requirements for offerors to bid to. NASA's intent is to have all outstanding DCNs incorporated before release of the final RFP to provide the offerors with a clean set of requirements. Yes, NASA will make available to offerors the draft DCNs and ongoing approved DCNs in the technical library found at <http://procurement.jsc.nasa.gov/crs2/>.
79. Q. In order to stimulate small businesses and provide the government benefits of small business utilization, would NASA consider allowing the offeror to include 1st tier suppliers small business utilization towards the prime contractor's Small Business goal?
- A. No, NASA will not allow the offerors to include the 1st tier suppliers to count toward the prime contractor's Small Business goals.
80. Q. Would NASA consider re-ordering/re-numbering the milestones in the Mission Payment Schedule on page 13 to be consistent with event schedule requirements specified in the SOW (e.g. MIR (#4 Milestone) at L-12 months (page 103) and the Unpressurized Integration Review (#3 Milestone) at L-10 months (page 104))?
- A. NASA has renumbered the milestones to be consistent.
81. Q. dRFP Page 223 states: "In the event of any inconsistency between data provided on electronic media and hard copies, the hard copy data will be considered to be correct."  
dRFP Page 226 states: "...the electronic copy of the proposal will be considered to be the intended data to measure compliance with the page limitations specified in this provision."  
Is the statement on page 226 an exception to the statement on page 223 or will the hard copy data be the intended data to measure compliance with the page limitations?
- A. The statements should have matched. The electronic copy will be used to check for compliance in both instances. The RFP will be updated to match the sections.
82. Q. An essential requirement in the execution of CRS2 is the availability of appropriate indemnification of 3rd Party Liability. In fact, the prices proposed will be based on the continued availability 3rd Party Liability via CSLA indemnification coverage. It is possible to have a valid FAA launch or re-entry license for a time period when Congress has allowed the CSLA indemnification to lapse, creating a situation where contract execution would be precluded for a responsible contractor. Previously NASA has acknowledged that the lack of CSLA indemnification coverage is a material change circumstance that would warrant contract attention. In response to CCtCap question regarding CSLA, it was indicated that, if in the future, the FAA or insurance changed then proper change procedures would be available.

Recognition that the lapse of CSLA indemnification during the period of execution of a mission results in a material contract change is required to enable responsible contractors to propose. Please reconsider the response to, CRS2 International Space Station (ISS) Commercial Resupply Services 2 (CRS2) Draft Request for Proposal (DRFP) NNN14507542R Questions and Answers Posting #1, Question 47.

A. A lapse in the indemnification provisions of the CSLA would not result in a material change to the contract since the requirements levied by the CRS2 contract would remain the same. In the event a lapse in the indemnification provisions of the CSLA actually occurs, NASA would be open to discuss concerns that arise at that point in time.

83. Q. It is clear that the milestones listed in Table II.A.1-1 are considered interim contract financing payments that are not for accepted items. The following questions arise from the language used elsewhere in II.A-1 and II.A-2.

- a. a. Is the use of the word “delivery payment” in the first sentence of Section 2.3 (a) a short hand for the Milestone 6: Cargo Delivery to ISS? The use of the “delivery payment” language creates confusion in light of these payments being defined as interim financing. Suggest that NASA amplify the language in paragraph to say: “In the event of a failed Mission, the Cargo Delivery to ISS payment defined in Table II.A.1-1 shall be forfeited by the Contractor and is not recoupable.” This language change is helpful in clarifying the intent of the government when the existing terms have several meanings.
- b. b. In the event of a failed mission, it appears that NASA intends to withhold the Mission Level Milestone 7 payment (Table II.A.1-1) defined as “completion of the mission” (referred to as final payment in paragraph (b) of 2.3 of II.A.2). It also appears that NASA could also withhold the Milestone 6: Cargo Delivery to ISS. Suggest the same language clarification be added in paragraphs (b) and (c) to clearly define that a mission Failure causes forfeiture of the Milestone 6 and Milestone 7 from Table II.A.1-1.
- c. c. NASA has indicated the withholding of Milestones 6 and 7 from Table II.A.1-1 is the remedy for a failed mission. NASA has not addressed the remedy for a partial mission success determination. Is NASA’s intent to withhold a partial portion of Milestones 6 and 7 to address the partial mission success determination?

A. NASA has clarified the language in the final RFP.

84. Q. Clause II.A.1.2, Paragraph 1.2 and NASA response to Question 10 indicates that Initial ISS Integration Milestones (Table II.A.1-2) payments are all interim payments. Clause II.A.2 identifies mission success determination and acceptance for Major Resupply Mission Milestone (Table II.A.1-1). The acceptance process for the Initial ISS Integration Milestones (Table II.A.1-2) is not defined. It is unclear when the interim payments for ISS Integration Milestones retire such that the associated payment is not recoupable. Is NASA’s intent to retire the ISS Integration Milestone payments at the completion of the first mission (completion of Milestone 7 of Major Resupply Mission Milestones)?

A. Per SOW paragraph 4.1, Formal Reviews, the Contractor shall provide minutes that include a list of attendees, agreements and action items resulting from each review to NASA within one week after the review; the payment milestone will not be considered complete until the minutes are provided and any actions identified as required to be completed for completion of the milestone are accomplished. Yes, it is our intent to retire the integration milestone payments at the completion of the first standard mission for which that integration is linked.

85. Please explain the level of detail required for DRD CRS2-2, Integrated Schedules. Also, please explain whether these are to be integrated Master Schedules.

A. The level of detail is described in the DRD as item (b) of the Data Requirements. Yes, Integrated Schedules are, or shall include an integrated master schedule.

86. SSP 50808, Rev E Section 3.3.8.2.3, for the required video for monitoring unpressurized cargo removal and installation please specify the Ethernet data interface definition (e.g, data format, data rates, etc.).
- A. Details were defined in a SSP 50808 DCN and will be included in SSP 50808 Rev F that will be included in the Technical Library prior to release of the Final RFP.
87. VI.A.23 PAST PERFORMANCE INSTRUCTIONS Paragraph (j), Can the records requested in this section (e.g., copies of environmental correspondence, OSHA logs for each site, insurance carrier letter, etc.) be excluded from the Past Performance volume page limitation? This data alone could easily exceed the page limitation.
- A. The RFP will clarify that the items requested in Paragraph (j) are not included in the page count.
88. VI.A.23 PAST PERFORMANCE INSTRUCTIONS Paragraph (j), The data required to be submitted in this section is sensitive company information. Please confirm that this information applies only to the Offeror's company information and that it is not required from each of the Offeror's qualifying major team members. However, if this section does apply to Offeror's major team members, please provide instructions on how these team members can provide their company sensitive information directly to NASA.
- A. The information requested in section (j) only applies to the Offeror's company information.
89. Are payments made for interim milestones on a mission recoverable by the government in the event of a mission failure?
- A. No, in the event of a mission failure, only the last two payments (Delivery and Mission Completion) would be withheld. However, as stated in I.A.1 paragraph 1.2, "Commercial interim payments are fully recoverable, in the same manner as progress payments, in the event of **termination for cause**, except for a mission that has been performed and determined successful per Clause II.A.2, Mission Success Determination, Investigation, and Corrective Actions."
90. Is there a procedure in place to allow relevant highly classified information for "Special Access Classified" programs to be evaluated by NASA in support of Offers Past Performance Volume? If so, please provide the process to enable delivery and review of highly classified information.
- A. No, NASA does not have a procedure in place to allow relevant highly classified information for "Special Access Classified" programs to be evaluated.
91. How will the pricing evaluation be affected if the an offeror cannot provide the service in 2017?
- A. The RFP will be adjusted to request mission pricing starting in 2018 rather than 2017. All years will be required to be priced starting in 2018.
92. The Evolved Expendable Launch Vehicle (EELV) program has a very significant yearly subsidy from the U.S. Government. How will the use of the EELV services be accounted for or adjusted in the pricing if proposed by an offeror?
- A. An adjustment is made each year to the DOD contract when the infrastructure is used for other customers' launches during that year, and range, mission integration, and mission-unique hardware costs for a non-EELV launch are charged to the respective contract rather than to the EELV contract. The CRS2 solicitation requires offerors to propose a complete cargo transportation service and price, inclusive of launch service. Each offeror must price its proposed service; NASA will not make price evaluation adjustments based on how the offeror chooses to provide its service.

93. For Major Subcontractors Past Performance submission requirements, as defined by those in which Offerors anticipate having a total contract value of \$100M or more of the work for the entire contract period, should the Offeror assume total contract value as the 6 minimum award missions when calculating the threshold? If the intent is all mission proposed & all years, due to the long duration and value of the contract, the number of major subcontractors over \$100M will easily exceed the 25 page count.

A. The calculation should be based on all missions proposed and all years. Adjustments to page count and major subcontract value will be evaluated.

94. In order to better leverage the services that NASA is procuring, as well as to further utilize space station as a launch pad for commercial low-earth orbit, I wonder if the ability of NASA to have the cargo ships be directed to any existing commercial platforms in similar orbit and inclination, on a per needed basis, where possible post ISS delivery, could be included as part of the eventual SOW? This would, for no additional funding, position the NASA ISS services as supporting both the current Program and any eventual follow-on. Most useful for raising funds from the commercial sector for a commercial platform. Thanks for your consideration

A. With this CRS2 procurement, NASA is procuring fixed-price services (i.e., missions) to and from the International Space Station (ISS). As such, NASA will not direct the contractor on how it should transport cargo to and from the ISS or whether it should or should not make stops at any commercial platforms along the way. Pursuant to II.A.5, Contractor Objectives on ISS Resupply Service Missions, in the RFP, the contractor may utilize unused space on a NASA purchased ISS resupply missions to deliver non-NASA cargo to other destinations, including existing commercial platforms.