

33. **Q:** On the CRS2 website at the acquisition schedule link it mentions site visits. Can you describe what is envisioned there and is the timing going to be after the Draft RFP, but before the Final RFP? Do you still plan these?

A: There are currently no plans for site visits. If site visits are planned, information will be posted to the CRS2 website.

34. **Q:** It is difficult for a single system to meet all of the cargo requirements, so do you expect multiple contracts servicing different parts of the requirements? Is a proposed solution that only meets some of the requirements something that you are interested in or must a complete architecture that can meet all requirements even if it requires multiple or variants of space vehicles to do that is what you expect to procure?

A: The range/restrictions of requirements for cargo solutions will be defined in the RFP. NASA expects to award one or more contracts to provide the cargo requirements documented in the RFP.

35. **Q:** Rather than a strict \$/kg approach, it would be better to have different rates for different cargo types since they require varying levels of difficulty such as critical pressurized cargo up and down mass being different than unpressurized cargo or cargo disposal. Will you consider this varying rate structure?

A: NASA will evaluate the suggestion and will consider the potential use of a varying rate structure in developing the draft RFP.

36. **Q:** One nice addition of data would be to provide an ideal schedule of cargo delivery of different types (so tie schedule given on page 4 with types of cargo at each of the launch windows), independent of current transportation limitations. You mentioned an even loading across the year at Industry Day, but can greater fidelity be provided? Can you better define the 20% critical cargo? Is that 20% of the pressurized cargo total or some different amount?

A: NASA will evaluate the suggestion and will consider it in developing the draft RFP. NASA expects to need most types of cargo on all launches. The critical cargo will be defined in detail in the draft RFP.

37. **Q:** New crew rotation strategies have been discussed such that coupling new crew and cargo options together could lead to a more optimum use of the ISS. Will this be considered?

A: The crew and cargo flights will remain separate.

38. **Q:** Currently you define launch minus 24 hour late load capability, but are there any requirements expected even closer to launch. Can you please further define the late cargo load details?

A: No late load capability closer to L-24 hours is expected.

39. **Q:** In our research, there are many communities that would like to see a requirement for low-g (2 g or less) return upon landing. Will NASA consider a requirement for this type of payload return similar to the timing of cargo access following landing (6 hours or less as currently stated)?

A: NASA will evaluate the suggestion and will consider potentially implementing this suggestion when developing the draft RFP.

40. **Q:** The RFI states that critical cargo should be turned over within 6 hours of landing. In our discussions with the user community many of them would like a capability of 1 hour or less (near-immediate) access. What is the driver for the 6 hours and if a capability to provide critical cargo turnover within 1 hour will that receive special consideration? Will NASA also consider more immediate access, as it seems consistent with CASIS demands as well?

A: NASA's 6 hour capability is driven by certain science payloads that are affected once the vehicle has come back into the gravity field. Evaluation criteria will be defined in the draft RFP regarding critical cargo access.

41. **Q:** The current commercial crew procurement promises each provider a minimum number of missions. Will NASA consider the same provisions for cargo and a certain cadence to maintain the capability during the 2017-2024 service period?

A: A guaranteed minimum order will be defined in the draft RFP.

42. **Q:** Given that Access to Space and enabling secondary/auxiliary payloads are major emphasis areas for NASA, will NASA consider additional incentives for launch of secondary or auxiliary payloads on the same mission as the CRS2 missions?

A: Requirements for non-NASA cargo on ISS cargo missions and the evaluation criteria for use of ISS cargo resupply service missions for non-ISS uses will be provided in the draft RFP.

43. **Q:** In the RFI NASA has identified annual unpressurized mass requirements (14.25-16.75mT), as well as bag requirement for M01, M02, M03 bags, and powered lockers. It is not obvious to us that these two sets of requirements are reconciled, since you can apply the maximum spec mass to the M01, M02, M03 bags, and powered lockers (assuming these are Shuttle middeck lockers) and still not achieve the annual mass requirements. (Water can help reconcile this, but only with very large quantities.) Applying historic mass values for M01, M02, and M03 bags results in an even larger disconnect between these mass and bag count requirements.

Can NASA show how the mass and bag type & quantity requirements are reconciled? If the apparent disconnect is real, is NASA's plan to a.) increase bag quantities and/or define volume requirements for additional cargo elements to match the mass requirements, b.) reduce mass targets, or c.) increase packing densities above historic values?

A: The large bags (M01, M02, and M03) and powered lockers are a subset of the total mass being requested. The majority of the mass is made up of half, single, double and triple sized cargo transfer bags. The typical cargo transfer bags do not require unique capabilities while the large M-bags and powered lockers do required significant unique capabilities. The total mass will be made up of the various cargo transfer bags, M-bags, powered lockers and conditioned stowage.

44. **Q:** In preparation for the CRS2 Draft RFP, we are evaluating alternative approaches for accommodating L-24 loading of late access cargo. According to the CRS2 RFI, the annual requirements for late access (L-24 hours) cargo are:

24-30 Powered Lockers

24-30 Condition Stowage Bags

20-25 Cargo Transfer Bag Equivalentents

We have not been able to determine the size and mass of these 3 different late access cargo categories. Please provide the dimensions for these 3 cargo containers, and the mass associated with each type of container that includes the anticipated mass of container (including the mass of the cargo) to be loaded within 24 hours of launch.

For each of the 3 types of containers specified below, please provide: 1) the Dimensions (length, width, height) of the container, and 2) the Mass of Container to be Loaded (including mass of cargo):

Powered Locker
Condition Stowage Bag
Cargo Transfer Bag Equivalent

A: These specifications are contained in the SSP 50833 document in the Technical Library on the <http://procurement.jsc.nasa.gov/crs2/> website.