Question & Answer

**Question 1:** In the Government's view, if a Contractor participates in satellite integration, as well as in a Pit Boss, Bus and/or Payload contract, will that create a potential organizational conflict of interest?

**Answer 1:** That could create a potential organizational conflict of interest (OCI). If so, the proposer should follow the BAA instructions (BAA p. 23) to prepare and submit an OCI disclosure including the creation of a comprehensive OCI mitigation plan.

**Question 2:** The BAA states that the total planned budget is $20.0M over three phases of the Blackjack Satellite Integration program. What is the planned budget breakout by program phase?

**Answer 2:** The proposer should provide the estimate that fits their SOW as proposed, meeting the BAA objectives.

**Question 3:** Within Part I, “Opportunity Description” on page 5, the BAA states that there are five categories of contracts with launch/operations being one category. On Figure 1 “Blackjack Schedule”, Phase 3, the schedule illustrates the integrator is required to provide launch services; However, Table 1 does not include launch services/operations within a category. Would DARPA clarify, whether launch services/operations are included in the Integrator category or within a separate BAA that will be released on a future date?

**Answer 3:** The satellite integrator is not required to provide launch services as a part of their response to this BAA. The integrator will be required to support launch preparations as detailed in the BAA. The Government is considering options for future launch service procurement.

**Question 4:** Within Part I, on page 5, paragraph 1, would DARPA clarify what contract category refers to the “provider” as well as the “performer”. In this context, would DARPA verify the “Performer” is the “Integrator” and the “Providers” provide the bus, payloads, and Pit Boss?

**Answer 4:** Yes, that is correct.

**Question 5:** Within Part I, on page 5, paragraph 1, would DARPA clarify the relationship of associate contractor relationships? In this context, does DARPA foresee the Integrator acting as a subcontractor to the payload, Pit Boss, and bus vendors since the “Providers” are required to establish associate contractor agreements? Would DARPA clarify who should initiate the associate contractor agreements?

**Answer 5:** The prime/sub relationship does not apply to ACAs. These are agreements between contractors that specify the requirements to coordinate to achieve compatibility and to prevent unnecessary duplication of effort. The contractors should initiate the agreements, and the contents should be based on the information required to be successful in execution of the contract.

**Question 6:** Within Part I, on page 6, paragraph 3, is it possible to submit a partial solution to the BAA to avoid issues over intellectual property and conflicts of interest with working with multiple providers as outlined in Part III, paragraph B “organizational conflicts of interest”?

**Answer 6:** The government believes a complete solution is the most highly desirable approach, although a partial solution will be considered.
**DARPA Blackjack Satellite Integration**  
Reference: HR001119S0015

**Question 7:** In the addendum, in Table 2, can an excerpt of this table that includes only the SWAP objectives for integration hardware become unclassified uncontrolled information and not FOUO?

**Answer 7:** Yes:

<table>
<thead>
<tr>
<th>Excerpt: Table 2 – Satellite Integration Performance Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size, Weight, and Power (SWaP)</strong></td>
</tr>
<tr>
<td>(if hardware is required)</td>
</tr>
<tr>
<td>&lt; 10 x 10 x 20 cm</td>
</tr>
<tr>
<td>&lt; 10 kg</td>
</tr>
<tr>
<td>&lt; 10 W</td>
</tr>
</tbody>
</table>

(Unclassified)

**Question 8:** Please confirm if the Flatsats will be GFE and if DARPA will be supplying the requirements/specifications as an addendum to the Satellite Integrator BAA? (Ref: Page 6)

**Answer 8:** The flatsats will be GFE. The specifications will be provided during Phase 1.

**Question 9:** Please describe common and unique scope for the Pit Boss HW/SWIL capability and the Satellite Integrator HW/SWIL capability. (Ref: Page 6)

**Answer 9:** The purpose of the Satellite Integrator HW/SWIL capability is to verify the integrated function of each node: mechanical, electrical, environmental, and network. Integration of several different unique combinations of buses, payloads, and Pit Boss must be verified. Emphasis should be on HWIL elements.

The purpose of the Pit Boss HW/SWIL capability is to verify the mission function across all nodes in a Blackjack shell. Emphasis should be on software and model-based simulation of buses, payloads, and Pit Boss.

**Question 10:** Please confirm Pit Boss is responsible for SW and data integration via Constructive, Live, Virtual test environment, and Satellite Integrator is responsible for hardware compatibility via Flatsat. (Ref: Page 6)

**Answer 10:** See Answer #9.

**Question 11:** Please confirm Satellite integrator is NOT responsible for node and constellation mission performance, including mission utility such as node level geolocation accuracy and optical chain signature characterization. (We assume this is Pit Boss or DARPA responsibility) (Ref: Page 6)

**Answer 11:** Correct. Pit Boss responsibility.

**Question 12:** As buses, payloads and Pit Boss assemblies move from suppliers to integration facilities, are those suppliers responsible for arranging delivery to the spacecraft integration contractor's facility? Also, is the offeror responsible for the cost and insurance of the transport(s)? (Ref: 13, E/TA2)

**Answer 12:** The bus, payload, and Pit Boss suppliers will be responsible for transport and insurance costs.
Question 13: Please clarify responsibility for the bus, payload and Pit Boss contractors to provide ground support equipment (GSE) the Satellite integration contractor. (Ref: Page 6 Table 1)

Answer 13: Suppliers of the bus, payload, and Pit Boss elements will be responsible for providing GSE to support transport, calibration, test, and other verifications. The satellite integrator will work with the suppliers to ensure GSE compatibility with the integration approach. The satellite integrator may need to develop unique GSE to support system level assembly, integration, and testing functions in association with the bus, payload, and Pit Boss performers.

Question 14: Please clarify the launch site for the Blackjack mission and expected launch vehicles. Does the Systems integrator have to provide the processing facilities?

Answer 14: The launch vehicle and launch site are TBD. The SI may assume a launch processing facility will be provided as part of a separate launch contract.

Question 15: Please clarify the expected security classification of the system integration work and satellite integration facility. Also, does the Satellite Integration contract need to make provisions for security of crypto equipment and keys and what are these items. (Ref: Page 12, TA1)

Answer 15: The system integration work and satellite integration facility may be classified up to Top Secret. The satellite integration contract should estimate the required provision for security of crypto equipment and keys based on past experience. The crypto equipment design is TBD at this time.

Question 16: What is the expected chain of custody for flight hardware? In other words, is there a formal transfer of ownership of the flight hardware from the payload, bus, and/or Pit Boss vendors to the satellite integrator?

Answer 16: The satellite integrator should propose the flight hardware chain of custody that is the most efficient and advantageous to the Government.

Question 17: What organization is responsible to ensure the Blackjack solution meets the overall operational objectives?

Answer 17: The Pit Boss developer will be responsible for ensuring that the Blackjack system is capable of meeting the mission performance objectives and the satellite integrator will be responsible for ensuring the functionality and environmental compatibility of each integrated satellite node.

Question 18: To what level of testing have you asked the BAA winners (for bus, payload, Pit Boss) prior to delivery to the integrator? Will all components and subsystems have already been through Tvac and vibe environments at the delivered level of assembly?

Answer 18: The bus, payload, and Pit Boss delivered flight units will have already undergone environmental testing at the unit level as part of qualification and acceptance testing.

Question 19: The Blackjack and Pit Boss offerors did not have a standard ICD to develop to during their offer submission. When can the satellite integrator expect the specifications and documentation from those providers to design the overall ICD and/or wrap interfaces?
**DARPA Blackjack Satellite Integration**
Reference: HR001119S0015

**Answer 19:** The satellite integrator will receive bus, payload and Pit Boss ICDs at Phase 1 kickoff.

**Question 20:** To ensure realistic cost and schedule for this BAA, can you please state the number of awardees and time frame for awards of the bus, payload and Pit Boss providers?

**Answer 20:** For the payload and bus BAA, 3 bus performers were awarded in Nov/Dec 2019 and 9 payloads were awarded between Dec 2018 and Mar 2019. The Pit Boss BAA awards are still in negotiation with contract initiation soon.

**Question 21:** "Testing will be conducted at the system integrator facility", Should this be stated as the "Satellite Integrator" facility or is there a separate mission/systems integrator role who will provision a test facility? (Ref: Page 13, TA 2 Para 1)

**Answer 21:** Testing will be conducted at the Satellite Integrator facility.

**Question 22:** Will the Satellite Integrator be provided electrical and mechanical support equipment from each of the bus and payload providers?

**Answer 22:** Yes. Please see answer to question #13.

**Question 23:** What is the delivery schedule to the satellite integrator for the payloads and buses?

**Answer 23:** The initial delivery of two flight-ready payloads, buses, and Pit Boss will be delivered approximately 3QFY21 with rapid assembly, integration, and testing in preparation for 4QFY21 launch.

**Question 24:** For Phase 1, option 2, how long after ATP is it expected that the Pit Boss software and brass-board as well as bus and payload emulators will be delivered?

**Answer 24:** It is anticipated that the bus and payload emulators will be available ~12/2019, and the Pit Boss software and brassboard will be available 2QFY2020.

**Question 25:** What ground test equipment is provided by the spacecraft and payload providers and would be available to the system integrator?

**Answer 25:** Please see answer to question #13.

**Question 26:** Will the Government clarify what the type of facilities the integrator is expected to provide to achieve launch ready spacecraft?

**Answer 26:** Propose the facilities deemed necessary to achieve the objectives of the BAA.

**Question 27:** If a contractor has been proposed as a subcontractor on the Pit Boss effort, can they propose as a prime for the integration effort?

**Answer 27:** Yes. Please see Answer #1.