

Questions and Answers

Questions posted on October 22, 2015

Question 1 – Is there an incumbent contractor associated with this work? If so, are you able to provide the name of the contractor and the contract #? Or, is this considered a brand new requirement?

Answer 1 – There is no incumbent contractor associated with this work. This is a new requirement.

Question 2 – Is this a Total Small Business Set-Aside?

Answer 2 – This requirement is not a small business set-aside.

Questions posted on November 13, 2015

Question 3 – SOW section 3 states “ensure that all contractor provided/installed systems are certified ready to support per the delivered mission checkout and operations plan no later than (NLT) Launch-21 days”. What is the definition of “certified”? Does the contractor get to determine certification?

Answer 3 – Certified is confirming with proof that the systems are tested, validated, verified, and ready to support in accordance with the mission checkout and operations plan. Yes, the contractor determines the method of certification.

Question 4 – SOW section 4 states “critical spares identification and implementation”. Can you clarify what “spares implementation” is?

Answer 4 – Spares implementation refers to stating what spares are cold versus hot as well as any built in redundancy versus off-line spares.

Question 5 – SOW section 9 states “data and voice transmissions shall be extended to the designated NASA LSP site”. Is the designated location Hangar AE, CCAFS?

Answer 5 – Yes, the designated location is Hangar AE at Cape Canaveral Air Force Station (CCAFS).

Question 6 – SOW section 9 states “on day of launch this shall be communicated over designated TBD voice channels”. Provide TBD.

Answer 6 – TBD is defined as having primary and back-up voice connectivity back to Hangar AE over separate transports.

Question 7 – SOW section 10 states “the period of performance of the basic services is from task order authorization through launch plus ninety (90) days”. Besides the final report and removing equipment from the telemetry site, what tasks under the contract are planned for launch plus ninety (90) days?

Answer 7 – Once the launch data recordings and final report is submitted by the contractor, NASA will review the information provided and may request the contractor to answer any questions that may arise.

Question 8 – Services to be Provided (SOW page 1): This section mentions the two S-band link frequencies that are to be supported (2288.5 MHz and 2269.5 MHz), but does not state what format the links are (NRZ-L, Biphas-L, etc.). Can those be provided? Can the bit rates of either link be provided?

Answer 8 – For purposes of the RFP a preliminary RF Link Analysis should be performed based on the information in SOW Attachment 2. Formats and Bit-Rates will be provided after award.

Question 9 – Equipment (SOW page 2): in the 1st bullet, the document mentions “TLE input”. Does this mean that TLEs for a nominal trajectory will be provided? Can a nominal trajectory also be provided (XYZ or similar coordinate system)?

Answer 9 – A nominal trajectory will be provided after the award. For purposes of the RFP a preliminary RF Link Analysis should be performed based on the information in SOW Attachment 2.

Question 10 – We require more information about injecting data at 70 MHz (2nd IF receiver frequency). Are there alternate methods available?

Answer 10 – The methods available are: 1) NASA will supply a 70 MHz modulated signal on a NASA supplied data recorder/playback unit, to be input in to the S-Band receiver, this will achieve an End to End (ETE) qualification test of the system from the receiver on down the line. 70 MHz IF input is common to most modern S-Band receivers; 2) Modulate baseband signals to S-Band to do a complete End to End (ETE) check-out of the system.

Question 11 – Tracking Station Coverage Profile (SOW page 8): Request nominal trajectory data beginning at the approximate time of expected AOS at Antigua (0° elevation). This appears to be before the time of the expected 3rd stage burnout (T+464 seconds), and before the first provided point of the nominal trajectory (T+460 seconds). Can you provide the plus/minus three sigma trajectories, so we can evaluate our capability to track in worst case conditions?

Answer 11 – The RFP is not tailored to a specific deployable site. Additional trajectory information will be provided after award. For purposes of the RFP a preliminary RF Link Analysis should be performed based on the information in SOW Attachment 2.

Question 12 – Is the Pegasus Telemetry Data NRZ or RNRZ PCM/FM data?

Answer 12 – For purposes of the RFP a preliminary RF Link Analysis should be performed based on the information in SOW Attachment 2. Formats and Bit-Rates will be provided after award.

Question 13 – What is the desired / approximate operational data rate for the Pegasus Telemetry PCM/FM data?

Answer 13 – For purposes of the RFP a preliminary RF Link Analysis should be performed based on the information in SOW Attachment 2. Formats and Bit-Rates will be provided after award.

Question 14 – What is the desired availability required for the link analyses for the Telemetry and Satellite backhaul of data to KSC? Uplink, downlink and total link?

Answer 14 – Total link availability, and telemetry and satellite backhaul of data shall be available to KSC no later than (NLT) Launch-21 days as part of the prelaunch functional test (SOW deliverable item 6) and shall be available through launch.

Question 15 – Do we assume clear sky launch criteria?

Answer 15 – Yes.

Question 16 – What is the expected S/N and BER performance desired for the PCM/FM link analysis?

Answer 16 – The BER is $10e-6$.

Question 17 – Attachment A of the SOW indicates a 5 Watt PCM/FM S-Band Transmitter output at 2288.5 MHz; is this EIRP from the launch vehicle including antenna gain?

Answer 17 – Yes, EIRP from the launch vehicle includes the antenna gain. Refer to SOW Attachment 2 for RF link analysis assumptions.