



DOCUMENT IN ENGLISH ONLY

September 05, 2014

Amendment no.4

The Request for Proposal 9F010-20140035 “ELECTROMAGNETIC DESIGN STUDY FOR THE UPGRADE AND REFURBISHMENT OF THE DAVID FLORIDA LABORATORY (DFL) IN OTTAWA - LARGE ANECHOIC CHAMBER” is hereby amended as follows:

Please take note of the following questions and answers, for your information (no extension of the Bid submission deadline will be done):

1. Can DFL provide more information regarding the items that will undergo PIM testing – e.g. omnidirectional antennas, reflector feeds, reflectors, solar panels, entire spacecraft?

- answer: The items that will be tested for PIM are helical antennas, antenna reflectors or reflector feeds. An entire spacecraft would also be part of our PIM test capability.

2. Which test items will undergo thermal PIM testing versus ambient temperature PIM testing? Will entire spacecraft undergo thermal PIM testing?

- answer: Only antennas will be tested for PIM in temperature.

3. What is the lowest PIM order that will be tested at the new facility – e.g. 7th, 5th, etc.?

- answer: The lowest PIM order will be 5th order and possibility of 3rd order.

4. Approximately what are the highest individual carrier power levels that will be used for PIM testing?

- answer: The carrier power level that will be used for PIM testing will be equal or less of the maximum power density specified by the anechoic material.

Some questions related to the standards, sections of the standards that are of interest, test levels, etc:

5. The Technical Specifications seem to be oriented toward Radiated Emissions testing of various sorts. For clarification:

a. What sections of MIL-STD 461/462 are of interest? RE only, or also CE, RS/CS? Same for DO-160, testing to what sections? A complete list of the specific sections of interest is necessary to properly evaluate the facility.

- answer: The Technical Specifications are oriented toward RE102 and RS103 (MIL-STD-461F) testing of space vehicles and satellites, ranging in sizes from microsats to large spacecrafts and lunar rovers. For RS103, the field strength should not be higher than 20 V/m (CW and 1 kHz, pulsed), and for RE102, not be lower than the limit of Figure RE102-3 of MIL-STD-461F. For testing (RS, RE, CE and CS), the tests may be performed with



the test equipment installed in the control room, and all cables fed through a wall panel (power line filters may be required).

b. If CE/RS/CS testing is part of the Technical Specification, what level in the various standards sections are of interest? Are pulsed fields of interest, as well as CW?

- answer: Refer to section 5.a. – Existing EMC test equipment will be used to meet all test requirements.

c. What size of Equipment Under Test (EUT) is anticipated?

- answer: Refer to section 5.a.

d. Also, what type of equipment would be included in the RS testing? For example, RS testing of rotary-wing aircraft can require much higher RF field strengths than for fixed-wing aircraft, satellites, or other vehicles.

- answer: Refer to section 5.a. – Military equipment will not be tested in the room, so high fields over 20-50 V/m will not be used.

e. Finally, if RS testing is to be included, a separate amplifier room would likely be needed. This in turn would require HVAC and electrical service sufficient to power and cool the needed amplifiers. Can you provide some idea as to the present capabilities that DFL has in place for these services?

- answer: Since no high power testing will be performed in the room, the current (or recommended) HVAC system and electrical service should be sufficient. The EMC test equipment will be housed in the control room.

Some more general questions as follows:

6. Do you anticipate maintaining the existing equipment for spherical near-field and far-field? If so, please advise your existing configuration (positioning equipment and RF)

- answer: Yes. A traditional roll over azimuth system currently exists with RF and controller equipment housed in the adjacent control room. Equipment details can be found at the link: <http://www.asc-csa.gc.ca/eng/df1/radio.asp>

7. Please clarify the tax inclusions/exclusions on page 5 under 2. Price in one area says GST excluded and below under (e) indicates a separate GST/HST requirement. Kindly advise.

- answer: The price provided in Appendix B should be before tax (price excluding taxes)

8. Please advise what is a PBN (Procurement Business Number) (Pages 5-6)

- answer: You can obtain a PBN by following the instructions at this link: <https://buyandsell.gc.ca/for-businesses/selling-to-the-government-of-canada/register-as-a-supplier#600>



If you not have time to obtain it before the closing of the RFP, just indicated that this number will follow.

9. Is it permissible to only send the proposal via email.

- answer: Yes, you can send your proposal by email at this address:

SoumissionsContracts@asc-csa.gc.ca

10. Finally, a general question: What is currently wrong with the existing chamber system ?

- answer: Building and chamber infrastructure has aged and has been earmarked for refurbishment and upgrade to comply with current building and fire codes, as well as compliance with ISO clean room standards outlined in the SOW.