| Solicitation No. - N° de l'invitation | Amd. No. - N° de la modif. | Buyer ID - Id de l'acheteur |
|---|---|---|
| W7714-19DRDC/B | 006 | 062sv |
| Client Ref. No. - N° de réf. du client | File No. - N° du dossier | CCC No./N° CCC - FMS No./N° VME |
| W7714-19DRDC | 062sv.W7714-19DRDC | |

# AMENDMENT 006

The purpose of this amendment is to respond to potential bidders' questions.

### QUESTION 41:

For PR-12(C); we understand that we are required to write about the "ultimate project results (desired final outcome)" but how is this different from the listed deliverables and milestones? How does the use of the term "ultimate" change the meaning?

### RESPONSE 41:

The listed deliverables and milestones requested for Annex D(1) are task driven equivalent to a Work Breakdown Structure (WBS), whereas PR-12(C) is related to the Transition/Exploitation Plan and is requesting the bidder provide details on the end result (goal, intent) of the project and should describe the product and or knowledge, technology device, method, process, systems, etc.

### QUESTION 42:

I have design diagram that cannot be inserted into the text fields. Can I attach it as "Other Info"? If so, how can I reference it within my text, just call it Figure 1 and name the jpeg file Figure 1.jpeg?

### RESPONSE 42:

Drawings, diagrams, schematics can be added in the Additional Information section up to a maximum of three pages.

### QUESTION 43:

For PR-11, are we required to fill-in 2000 words **in addition** to Annex-F or you need Annex-F to not exceed the 2000 words?

### RESPONSE 43:

To comply with PR-11, there is a text box in the online tool that allows the bidder to elaborate, in a maximum of 2000 words.  Please refer to Amendment 005 for an update to Annex F.

### QUESTION 44:

For PR-8, PR-9, and PR-10; are we required to fill-in 1000 words for each PR **in addition** to Annex-D(1)/Annex-D(2)/ & Annex-E or you need Annexes to not exceed the 1000 words each?

### RESPONSE 44:

To comply with PR-8, the bidder must complete Annex D(1), with a maximum of 1000 words per milestone.  To comply with PR-9, the bidder must complete Annex D(2).  To comply with PR-10, the bidder must complete Annex E.  PR-9 and PR-10 each have a 1000 word maximum.

| Solicitation No. - N° de l'invitation | Amd. No. - N° de la modif. | Buyer ID - Id de l'acheteur |
|---|---|---|
| W7714-19DRDC/B | 006 | 062sv |
| Client Ref. No. - N° de réf. du client | File No. - N° du dossier | CCC No./N° CCC - FMS No./N° VME |
| W7714-19DRDC | 062sv.W7714-19DRDC | |

*QUESTION 45:*

Can NRC, as a bidder, use the funding provided through this RFP and DRDC funds to pay for NRC employee salaries because NRC is partly a cost recoverable agency in the Federal government?

*RESPONSE 45:*

In-kind contributions at the Federal government level must be used to cover the actual salary costs of indeterminate employees that will be designated as part of the project team. When including labour as an in-kind contribution at the Federal level, salaries of project staff may include EBP as described in Section 3.5.7. CSSP funds can be used to cover the salaries of determinate staff backfilling the indeterminate position and the proposal must include the EBP conversion rate as described in Section 3.5.6.

*QUESTION 46:*

Under the R&D technology demonstration capabilities, paragraph #4, "Maintain awareness of space objects in the orbital proximity around a Canadian satellite": the language states, "Propose a payload to detect and track a 20 cm diameter space object in LEO within 250km radius sphere of the host microsatellite."

a)  Since the language states "Propose a payload . . .", are we correct in assuming that there is no intent to fly the proposed payload on this mission?

b)  It also states " . . .within a 250 km radius sphere of the host microsatellite." Are we correct in assuming the detection capability is only concerned with objects in the vicinity of the host satellite itself, and not with detecting objects around any other satellite?

c)  Given the dynamics of objects in LEO, the purpose of this detection capability is difficult to discern. At LEO velocities, objects take on the order of 30 seconds to travel 250 km, which is insufficient time to take any meaningful action. Is there any additional information available that might help clarify the purpose of the detection capability? This might have an impact on the sensor characteristics.

d)  For this same challenge, It states that DND/DRDC will own the satellite, but that the bidder will perform R&D operations and end-of-life procedures for the space segment. Can some clarity be provided on the project timeline (start date, desired launch date, etc.), and the period of performance for the operations support required?

*RESPONSE 46:*

a)  No – the proximity awareness payload will be integrated onto a flight-ready host microsatellite.

b)  Yes – this specific payload's intent is to monitor the proximity (volume of space) around the host SSA microsatellite.

c)  Objects flying co-orbitally, or in co-elliptic drifting, altitude or inclination offset orbits are the class of object intended for this sensor. These objects are easily detectable with space-based optical sensors with lead times of days, months or years. We currently perform tracking of such objects using narrow field sensors, but use a tasked-based approach to detect them. This new sensor's intent is to perform un-cued detection of proximity objects as a technology demonstration. The sensor's primary mode of operation should emphasize this case.

| Solicitation No. - N° de l'invitation | Amd. No. - N° de la modif. | Buyer ID - Id de l'acheteur |
|---|---|---|
| W7714-19DRDC/B | 006 | 062sv |
| Client Ref. No. - N° de réf. du client | File No. - N° du dossier | CCC No./N° CCC - FMS No./N° VME |
| W7714-19DRDC | 062sv.W7714-19DRDC | |

It is correct that conjuncting objects do move very quickly past an orbiting platform, but in practice they are usually detectable on the ½ orbit revolutions prior to, and during the closest approach. We've done this many times with existing space-based capabilities. If the proposed sensor is capable of detecting a conjuncting object's high speed passage by the host, please indicate so in the proposal.

d) After contract award, the total project duration is 60 months including post-launch commissioning and 1 year of on-orbit operations.  Launch would occur just prior to the 4th year of the project.


***QUESTION 47:***

The CFP extension date does not appear to be reflected in the online submission tool "FluidReview" as it  still shows each "Task" by 08/30/2019 02:00:00 PM EDT.  Will the dates be modified in FluidReview?

***RESPONSE 47:***

The online tool has been updated accordingly.


**All other terms and conditions remain unchanged.**