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11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Land Projects and Communication System Support
Division/Div des projets terrestres et support de
systèmes de communication
11 Laurier St. / 11, rue Laurier
8C2, Place du Portage, Phase III
Gatineau
Québec
K1A 0S5

Title - Sujet MUAV SYSTEMS	
Solicitation No. - N° de l'invitation W8476-133748/B	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client W8476-133748	Date 2013-06-17
GETS Reference No. - N° de référence de SEAG PW-\$\$RA-053-23769	
File No. - N° de dossier 053ra.W8476-133748	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-07-08	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Springs(ra div.), Brent	Buyer Id - Id de l'acheteur 053ra
Telephone No. - N° de téléphone (819) 956-7889 ()	FAX No. - N° de FAX (819) 956-0636
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

This Solicitation Amendment 02 is raised for **MUAS QUESTIONS AND ANSWERS.**

QUESTION 1

I would like to request further consideration of an extension of the RFP for 30 calendar days vs. 13 calendar days. Our organization will be closed for one week of that period and the extended time frame does not provide us sufficient time for a technical or financial response.

Answer: No. Bid closing date was already extended to July 8, 2013.

QUESTION 2

The requirement states "the MUAS shall have a minimum reliability such that over 90% of the flights launched during 1,000 or more recent operational flights, or during operational testing, shall be proven through documentation to achieve mission completion." Can you clarify that this requirement can be proven through operational testing and does not require 1000 operational flights to support and that the minimum threshold for an acceptable MUAS is 300 flights. I would like further clarification on why it is a mandatory requirement that the minimum reliability to achieve mission completion be based on 1,000 flights or more when the System Maturity requirements in Section 3.1 of the SPS call for at least 300 flights; the requirement for Launch and Recovery in Section 3.7.1.2 gives 1,000 flights as a desired, but not a mandatory, requirement; and the requirement for System Availability Data in Section 3.1.3 of Annex B SOW indicates that for less mature or developmental systems the availability of data shall be estimated based on system design information and data collected during a minimum of 300 completed flights. We believe the mandatory requirement for mission completion in Section 3.1 of the SPS to be in conflict with other requirements in the solicitation

Answer: (3.1.1.2, 3.1.1.3) the latest version MUAV shall have at least 300 successful flights. (3.1.3.1) The MUAS shall have a minimum reliability such that over 90% of flights launched during 1,000 or more recent operational flights. It is understood by the DND that a new version or latest version of the MUAV shall have completed at least 300 successful flights (3.1.1.2, 3.1.1.3) given that this new version of the MUAV is based or closely related to a previously successful MUAS system with a maturity at least 1,000 flight.

QUESTION 3

3.5.3 The AMSL and temperature restraints implies a specific density altitude for launch and recovery but without a relative humidity it is hard to quantify the performance constraints. Are you trying to specify a specific density altitude for launch and recovery operations and if so can you please reword the question at the specific density altitude limitation?

Answer: A relative humidity is now of up to 25 %. The specification shall now read as below:
3.5.3 The System shall safely be able to launch, operate and recover in operational areas characterized by an altitude of at least 13,100 feet (ft) / 4000 metres (m) Above Mean Sea Level (AMSL) at temperatures up to +19° C / +66° F, and with a relative humidity up to 25%, with no wind to assist or interfere with the launch.

QUESTION 4

(1.3.1) Will disqualification result from non-compliance to a specific requirement if the response includes a roadmap, plan, or evidence of a clear pathway towards compliance? (I.e. there will be no allowance for development to meet requirements?)

Answer: The System must meet the requirement at the time of bid submission.

QUESTION 5

(3.1.3.1) Is this a request for a documented reliability analysis (i.e. fault tree or similar) or for documentation of operational reliability (i.e. operational reports or system performance reports)?

Answer: At bid proposal only the compliance Statement agreement under the evaluation at Annex G, Appendix 5, section 3.1.3.1 is required. After contract award the Bidder must have documentation available to substantiate its availability claim. The Bidder's documentation will be examined by the airworthiness authority, and a ruling on the suitability of the documentation will be provided.

QUESTION 6

(3.2.1) What is meant by "uninterrupted" telemetry?

Answer: Under Canadian flight rules, the aircraft must be under positive control at all times. To achieve this, the data link performance must ensure that the Ground Control Station receives the data from the aircraft on what is effectively a nearly continuous real time nature. When the aircraft is within an acceptable operating range the video image provided and the telemetry data required for command and control purposes shall meet the performance standards for at least 90% of any one minute period. (I.E. Interruptions in excess of six (6) seconds is not acceptable for any situation other than accidental flight behind terrain features that interrupt the data link Visual Line Of Site.)

QUESTION 7

(3.3.1, 3.3.2, 3.3.3, 3.3.4) This is a demanding set of temperature conditions, what type of battery chemistry did you use as the basis for the development of this requirement? Does this assume a temperature saturated battery pack?

Answer: In recognition of the challenges facing Bidders, the coldest condition specifications are changed as follows:

3.3.1 The MUAV shall have a flight endurance of at least 45 minutes at all temperature conditions within the range from -10°C to +49°C (+14° F to +110° F)

3.3.2 The MUAV shall have a flight endurance of at least 60 minutes, at all temperature conditions within the range from +4° C to +30° C (+41° F to +100° F)

3.3.3 The MUAV should have a flight endurance above 45 minutes at all temperature conditions within the range from -10° C to +49° C (+14° F to +110° F)

3.3.4 The MUAV should have a flight endurance above 60 minutes, at all temperature conditions within the range from +4° C to +30° C (+41° F to +100° F)

Notwithstanding the temperature limitations of the Ground Control Station, and that reduced aircraft battery capacity in cold conditions will limit endurance, the aircraft itself shall be capable of operating in ambient conditions down to -20°C as per section 3.5.1, and it should be capable of operating in temperatures below -20°C as per section 3.5.2.

QUESTION 8

(3.4.2.j) Can you better define what is meant by "battery storage management system"? Are there additional requirements for this system?

Answer: Lithium Polymer and similar rechargeable batteries fall under the hazardous or dangerous goods rules if they exceed a specific size or voltage, or if more than a specific limited quantity of cells are stored in a single container. The Bidder needs to ensure that whatever containers are used meet Canadian transportation and safety requirements, and provide a reasonable level of protection to other batteries and System components if any one battery fails during storage or transportation.

QUESTION 9

(3.4.2.h.i) Can you provide details on the CF load carrying vest?

Answer: The current (2001) CF Tactical Vest (TV) has been designed specifically for the Canadian Soldier by a load carriage design team and validated by Army Field Forces user trials. The TV is designed to provide load carriage for various missions. Pockets and pouches are sewn on to a mesh, which provides ventilation. The wide shoulder straps help to disperse the load over a wide area thereby avoiding pressure points. As the main component of fighting order, its

primary function is to carry ammunition and water for immediate combat. The TV is available in two sizes, Medium and Large. It is adjustable to accommodate the full range of individual operational combat clothing configuration from combat shirt alone to middle layer of the Improved Environmental Clothing System (IECS) or the Integrated Clothing Ensemble (ICE) with Fragmentation Protective Vest and Bullet Resistant Plates. (See figures below)

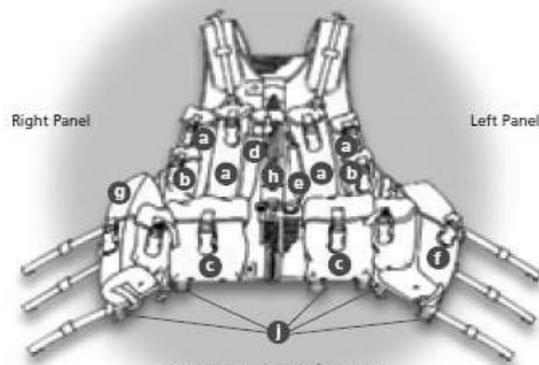


Figure 1 – Outside view of the Tactical Vest left and right panels

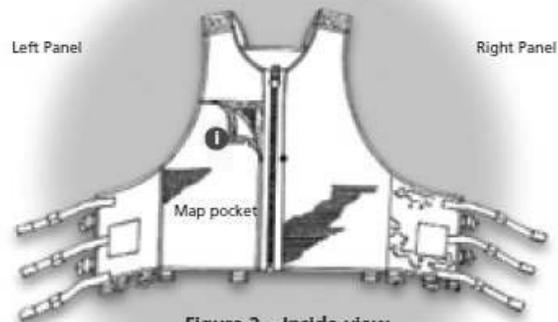


Figure 2 – Inside view of the Tactical Vest left and right panels

- a. Four C7 Magazine pockets
- b. Two High Explosive (HE) Fragmentation Grenade pockets M67
- c. Two field dressing / all-purpose utility pockets with snow cuff
- d. A Flashlight pocket (for mini-MagLite™ or equivalent) with coloured lens holder
- e. A whistle (NSN 8465-21-104-7964) pocket
- f. C9-200 Round Belt Box Magazine pouches with smoke grenade pocket
- g. Water Bottle pouches with smoke grenade pocket
- h. Sternum mounted bayonet
- i. Map/combat ration pocket
- j. Alternate attachment point for C4 NBC Mask Carrier vice sling

QUESTION 10

(3.10.2.2) Why is conversion software not acceptable?

Answer: Conversion errors can create system errors that in some operating systems prevent launching a flight, or in other instances cause performance issues in flight. Canada will not hold separate map database resources for the MUAS.

QUESTION 11

(3.10.11) Will the DND allow for NRE recovery for the work required to implement this software package?

Answer: If the System does not already have an appropriate Vehicle Specific Module to enable operation under VCS 4586 there will be costs associated with the requirement. This cost is considered to be a valid NRE expense. The Bidder should identify the cost in the proposal. If no price is proposed, it will be contracted as a no-cost deliverable.

QUESTION 12

(3.11.3, 3.11.4, 3.11.5) Can you define the data-link specifications for the link you envision that is compatible with both ROVER 5i and ROVER 6? Are there non-proprietary data-links available that can do this? Can you clarify that the upgrade for the Rover 5i will also be applicable to the Rover 6 RVT.

Answer: The Bidder is expected to deal directly with L3 Communications to determine if there is any requirement to change or modify the Bidder's proposed data link to communicate with the L3 communications ROVERs systems.

Canada's ROVER 5i supports all frequencies specified by the manufacturer.

Canada will take responsibility for any SW upgrade to the Rover 5i and ROVER 6

QUESTION 13

I could not find any reference to demonstrating the Rover 5i or Rover 6 compatibility in Appendix 6 to Annex G Demonstration Flight Evaluation Program. It makes sense that the Rover 5i would not be demonstrated since Canada has offered to take responsibility for any SW upgrade if required. However, if this is not the case for Rover 6, is it allowable to meet this requirement at a later date in the program or does this requirement need to be met and demonstrated by the DFE?

Answer: 3.11.3 Compatibility of the data link with the ROVER 5i requires a compliance statement (CS) and proof of compliance (POC) in Appendix 5 to Annex G. Compatibility will be demonstrated at some point during the Demonstration Flight Evaluation Program with a CAF ROVER 5i.

3.11.4 The data link shall be compatible with ROVER 6, only a compliance statement is required from the bidder in Appendix 5 to Annex G, proof of compliance and demonstration are not required.

QUESTION 14

I would like to have a better understanding of what the operational objectives are of the 60 minute flight duration. For example, given the time on target objectives in section 3.7.3, is the operational objective for endurance to allow a minimum amount of time on target? I.e. for any given 60 minute period the actual operational requirement for endurance would be to allow a minimum of X minutes to be on target by a single system? Or is the operational objective simply to have "eyes in the sky" for a minimum 60 minute period with no defined 60 minute use case? If this is the case, is there an operational reason why the threshold is set to 60 minutes?

Answer: Canada requirement is that a SINGLE aircraft shall have a flight endurance of at least 60 minutes (SPS 3.3). This requirement does NOT imply that the aircraft must be on station for a specific amount of time. Section (3.7.3) is a requirement for Target Acquisition and Target Tracking and is a separate requirement that requires the optic payload to maintain visual contact with a target under various wind conditions and with a moving target. This does NOT imply that Canada requires an aircraft that can stay only one (1) minute on station (3.7.3.1, 3.7.3.3) or two (2) minutes on station (3.7.3.2) and return to the initial recovery point immediately.