



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**
11 Laurier St. / 11, rue Laurier
Place du Portage , Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

| | |
|---|---|
| Title - Sujet Samuel Risley - ICS Samuel Risley - Internal Communications System | |
| Solicitation No. - N° de l'invitation F7049-210290/C | Date 2023-02-02 |
| Client Reference No. - N° de référence du client F7049-210290 | |
| GETS Reference No. - N° de référence de SEAG PW-\$\$MD-049-28939 | |
| File No. - N° de dossier 049md.F7049-210290 | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2023-03-15 Heure Avancée de l'Est HAE | |
| F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/> | |
| Address Enquiries to: - Adresser toutes questions à: Hatherall (049md), Mark | Buyer Id - Id de l'acheteur 046md |
| Telephone No. - N° de téléphone (343) 540-9460 () | FAX No. - N° de FAX () - |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes | |

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Ship Refits and Conversions / Radoubss et modifications de navires and / et
11 Laurier St. / 11, rue Laurier
6C2, Place du Portage
Gatineau, Québec K1A 0S5

| | |
|--|--|
| Delivery Required - Livraison exigée See Herein – Voir ci-inclus | 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 |

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PART 1 - GENERAL INFORMATION

1.1 Reissue of Bid Solicitation

This bid solicitation cancels and supersedes previous bid solicitation number F7049-210290/B dated 2022/04/06 with a closing of 2022/05/31 at 14:00 EDT. A debriefing or feedback session will be provided upon request to bidders/offerors/suppliers who bid on the previous solicitation.

1.2 Security Requirements

There is no security requirement applicable to this Contract.

1.3 Statement of Requirements

The Canadian Coast Guard (CCG) has a requirement for a Ship Internal Communications System for the CCGS Samuel Risley to meet its operational requirements and to provide efficient communications throughout the vessel in both normal and emergency conditions in accordance with Annex "A" Statement of Requirements.

1.4 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.5 Canada Post Corporation's (CPC) Connect service

This bid solicitation allows bidders to use the CPC Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2022-03-09) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.1.1 SACC Manual Clauses

[B1000T](#) (2014-06-26) Condition of Material - Bid

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated in the bid solicitation.

Only bids submitted using Canada Post Corporation's Connect service will be accepted. The Supplier must send an email requesting to open a CPC Connect conversation to the following address:

tpsgc.pareceptiondessousoumissions-apbidReceiving.pwgsc@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an CPC Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through a CPC Connect message if the bidder is using its own licensing agreement for CPC Connect.

It is the Supplier's responsibility to ensure the request for opening a CPC Connect conversation is sent to the email address above at least six days before the solicitation closing date.

Bids transmitted by facsimile or hardcopy to PWGSC will not be accepted.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than Five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

2.5 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)

(c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Bidders must submit its bids electronically in accordance with section 08 - 2 of the 2003 standard instructions. The CPC Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications

Bids transmitted by facsimile or hardcopy will not be accepted

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Section I: Technical Bid

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings.

Bids shall follow all instructions, general terms, conditions and clauses identified herein by title, number and date. All references to descriptive material, technical manuals and brochures included as part of this Bid should be referenced accordingly.

Bidders must explain and demonstrate how they meet the technical requirements and how they will carry out the work and include all information and documentation as requested in Part 4.1.1.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment Annex "B".

3.1.1 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex "C" Electronic Payment Instruments, to identify which ones are accepted.

If Annex "C" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

3.1.2 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

A mandatory requirement is described using the words "shall", "must", "will", "is required" or "is mandatory".

4.1.1.1 Mandatory Technical Criteria

| Eval # | SOR Ref | Description | Mandatory Information, Documentation and Certificates to be provided with the bid | Page number of bid where information can be found |
|--------|---------|--|---|---|
| 1. | MR 11 | The Shipboard Integrated Communications System (SICS) must be Type Approved by a Classification Society that is recognized by Transport Canada | Documentation of Type Approval | |
| 2. | MR 15 | The Ship Internal Communication System must be able to use the existing 16 AWG – 2 conductor multi-pair cabling on the ship. These currently are fed from the central equipment to each: a. Telephone b. PA Speaker Loop c. Signalling Beacon d. Talkback Speaker e. Call-in Button | Technical data sheet | |
| 3. | MR 16 | All master control heads may operate off new cabling and do not have to use the existing multi-pair cables. a. All cable will be marine type approved b. All Cat 6A cabling must use shielded cable and connectors. c. If a specialty cable is required, it will be | Written description of cable type | |

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| | | provided with the system. | | |
| 4. | MR 19 | The equipment must fit in one (1) rack measuring not more than 6 feet high, 24 inches wide by 32 inches deep OR (2) racks not more than 48 inches high, 24 inches wide by 32 inches deep. | Rack drawing | |
| 5. | MR 20 | The cabinet must have an internal 19 inches fixed frame. | Rack drawing | |
| 6. | MR 22 | The cabinet must come prepared with proper ventilation to allow sufficient air flow for the cooling of equipment. | Rack drawing | |
| 7. | MR 23 | The cabinet must come prepared with a chassis grounding point. | Rack drawing | |
| 8. | MR 24 | The cabinet must have an option for a cable access through the top of the cabinet. | Rack drawing | |
| 9. | MR 25 | All equipment must be accessible from the front of the cabinet. | Rack drawing | |
| 10. | MR 26 | It must have a front door on hinges. | Rack drawing | |
| 11. | MR 27 | Any network switches that are used must include a patch panel that is, at a minimum, the same number of ports as the switch. a. The patch panel must include the RJ45 Jack connector to terminate field Cat.6A cables. | Rack drawing | |
| 12. | MR 29 | The system controllers, amplifiers, network switches must allow, at a minimum, a power input of 110-230Vac, 60Hz. | Technical data sheet | |
| 13. | MR 30 | The integrated systems must have automatic switch-over facilities from the main and emergency power sources. | Electrical drawing of switchover circuitry with any supporting technical data sheet | |
| 14. | MR 31 | The integrated systems must have an Uninterruptible Power Supply (UPS) to provide clean and conditioned power to the integrated systems during blackout conditions and during the switch over from main and emergency power sources. a. The UPS must be able to provide, at a minimum, 30 minutes of run time. b. The UPS must be shipboard approved by a classification society recognized by Transport Canada. | Technical data sheet, Classification society approval documentation | |
| 15. | MR 32 | All fault conditions must provide a visible indication in both the equipment cabinet, as well as on the master control heads. | Equipment diagram | |
| 16. | MR 33 | The integrated system must provide the following discrete alarm outputs: a. Main/Emergency failure system A; b. Main/Emergency failure system B; c. UPS failure system A; d. UPS failure system B; e. PA system fault system A; f. PA system fault system B; and g. Telephone System fault. | Written list of all alarms | |

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| 17. | MR 34 | If the talkback feature is not present on the telephones, it is required to be present as part of the PA system. | Written operational description of talkback system including how it is integrated into the overall system | |
| 18. | MR 40 | The SICS system must include an exterior type talkback loudspeaker: a. Designed for outdoor decks and high noise areas; b. It must be rugged; c. Must have, at a minimum, an Ingress Protection rating of IP66 or better; d. Must have, at a minimum, 10W speaker; e. It must include, at a minimum, one (1) call button; and f. Must allow for hands free operation. | Technical data sheet | |
| 19. | MR 41 | The ICS system must include a talkback station designed for explosion proof areas: a. It must have, at a minimum, an Ingress Protection rating of IP66. b. It must be a rugged type station; c. It must have a built-in interface for a headset; d. Must have, at a minimum, 10W speaker; e. It must have hands-free communication capability; f. It must include, at a minimum, one (1) call button; and g. It must be IEC Ex or ATEX certified. | Technical data sheet | |
| 20. | MR 42 | The ICS system must include a visual indicator: a. It must have, at a minimum, an Ingress Protection rating of IP66; b. It must be powered by 120VAC; c. It must include an LED light that is green; and d. It must be a strobe light type (not rotating light type). | Technical data sheet | |
| 21. | MR 46 | The telephone system must be approved as part of the Shipboard Integrated Communications System (SICS). | Interconnection Details Provided | |
| 22. | MR 47 | The telephone system must be a digital system. | Technical data sheet | |
| 23. | MR 51 | The telephone system must have the following features: a. Caller ID; b. Call forwarding; c. Forward on busy; d. Call Pick-Up; e. Call park; f. 3-way conferencing; g. Wake up system; h. Programmable from Web Interface or | Documentation | |

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| | | software running on a PC; and i. Auto attendant/External calls | | |
| 24. | MR 52 | The telephone system must have a call routing feature allowing the system to route external incoming calls to a specific telephone station or to an auto attendant. | Documentation | |
| 25. | MR 53 | The telephone system must have an auto attendant function. a. The auto attendant function must allow the user to record a voice message. b. The auto attendant function must allow the user to change the recorded voice message from a specifically programmed phone. c. The auto attendant function must provide the incoming caller with the ability to select specific stations throughout the vessel. | Documentation | |
| 26. | MR 54 | The telephone system must have a "night bells" feature. a. The night bells feature allows for the ability to have calls that would normally ring in the wheelhouse, for example, to ring in one or multiple different locations. b. This feature must be able to be activated and deactivated from an authorized telephone station. | Written feature description with any supporting documentation | |
| 27. | MR 55 | The night bells feature must have at minimum, two (2) configurable ring groups. | Written feature description with any supporting documentation | |
| 28. | MR 56 | The telephone system must interface with the PA system and be approved as part of the PA system. | Written interconnection details with any supporting documentation | |
| 29. | MR 57 | All telephone stations must be able to activate the PA system with live (non-recorded) messages, if so programmed. | Written feature description with any supporting documentation | |
| 30. | MR 58 | The specifically programmed telephone station must be able to select which broadcast zones will broadcast the live PA announcement. | Written feature description with any supporting documentation | |
| 31. | MR 59 | The telephone system must include a minimum of 4 analog external lines. | Technical data sheet | |
| 32. | MR 60 | The Telephone System must be configurable to limit external communication lines' access to specifically programmed telephone stations. | PBX feature list | |
| 33. | MR 61 | The Telephone system must be able to interface with cellular and satellite phones. | PBX feature list | |
| 34. | MR 62 | All external lines must be able to be programmed to a telephone extension. | PBX feature list | |
| 35. | MR 63 | The telephone system must include a master station: | Technical data sheet | |

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| | | <ul style="list-style-type: none"> a. It must be flush mountable (console); b. It must have physical buttons and not use a touchscreen for operation; c. It must include a full-dial pad; d. It must include a handset; e. It must include a marine handset retainer; f. It must have hands-free communication capability; and g. It must include, at a minimum, thirty (30) speed dial selections. | | |
| 36. | MR 64 | <p>The telephone system must include a telephone designed for cabins and common areas:</p> <ul style="list-style-type: none"> a. It must be wall and desk mountable; b. It must include a full-dial pad; c. It must include a handset; d. It must include a marine handset retainer; e. It must have hands-free communication capability; and f. It must include, at a minimum, ten (10) speed dial selections. | Technical data sheet | |
| 37. | MR 65 | <p>The telephone system must include a telephone station designed for high noise areas:</p> <ul style="list-style-type: none"> a. It must have, at a minimum, an Ingress Protection rating of IP66. b. It must be a rugged type station; c. It must have a built-in interface for a headset; d. It must support external visual indicator activation; e. It must include, at a minimum, one (1) speed dial selection. | Technical data sheet | |
| 38. | MR 66 | <p>The telephone system must include a telephone station designed for an outdoor deck within an enclosure:</p> <ul style="list-style-type: none"> a. It must have, at a minimum, an Ingress Protection rating of IP66. b. It must be a rugged type station; c. The entire station must be enclosed with a door for access; d. It must have a built-in interface for a headset; e. It must include, at a minimum, one (1) speed dial selection. | Technical data sheet | |
| 39. | MR 67 | <p>The system must include a wired headset for a high noise area station:</p> <ul style="list-style-type: none"> a. It must have a Push-To-Talk (PTT) microphone; b. It must be able to interface with the outdoor and high noise area station; c. It must provide ear protection; and d. It must include a cable with a minimum length of 10 meters. | Technical data sheet | |

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| 40. | MR 69 | Any DECT equipment must be approved for use in Canada by Industry Canada. a. It must include a base unit. b. It must include portable phones with individual chargers. c. Each portable phone must have their unique telephone extension number. d. Portable phones must NOT broadcast PA announcements or any alarms. | Technical data sheet | |
| 41. | MR 71 | The existing ICS ship cable will be reused; Therefore, the PA speakers must interface with the core equipment over the existing 16 AWG-2 wire cable. | Technical data sheet | |
| 42. | MR 72 | The PA system must include amplifier(s): a. The PA Amplifier must have redundant interfaces; b. The PA Amplifier must have, at a minimum, two (2) independent output channels; c. The PA Amplifier must be continuously rated for the maximum power they are required to deliver into the system for audio and for alarm tone signals; and d. The PA amplifier must support 70 V or 100 V line output. | Technical data sheet | |
| 43. | MR 73 | The PA system must include one system controller for Loop A and one for Loop B: a. The PA controller must include the system controls and monitoring functions; and b. Loop A and Loop B PA controllers must be able to automatically take control of each other systems if either PA controller fails. | Technical data sheet | |
| 44. | MR 76 | The PA system must allow programming at a minimum, six (6) zones and three (3) groups of zones. The following are the desired zones: a. All Call b. All Call, No Cabins c. Deck Group d. Work Group e. General Group f. Cabins Group | Technical data sheet | |
| 45. | MR 77 | The PA must mute the General Alarm and Fire Alarm during a PA announcement and unmute the alarm when the PA announcement has concluded. | Functional description | |
| 46. | MR 78 | Any GA or PA visual indicator must not be affected by the muting of an audible alarm during a PA announcement. | Functional description | |
| 47. | MR 83 | The PA system must include a PA Master Control head: a. Control Heads must include a microphone and speaker; b. It must have physical buttons and not use a touchscreen for operation; | Technical data sheet | |

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| | | <ul style="list-style-type: none"> c. Control heads must include a dedicated selection for each of the PA system broadcast zones and groups of broadcast zones; d. The PA system must broadcast PA messages to the broadcast zones corresponding to the selected button; e. The PA system must have an emergency override function that is accessible from the PA control head that gives immediate access to the PA speakers, while restoring all speakers to their native sound levels. | | |
| 48. | MR 84 | <p>The PA system must include a horn type loudspeaker:</p> <ul style="list-style-type: none"> a. Intended use is for machinery spaces and outdoor decks; b. Must have, at a minimum, an Ingress Protection rating of IP66 or better; c. Must have adjustable power taps that cannot be altered by the operator, that offers at a minimum a 15 W configuration; and d. It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifiers supplied with the system. | Technical data sheet | |
| 49. | MR 85 | <p>The PA system must include a ceiling flush-mount loudspeaker:</p> <ul style="list-style-type: none"> a. Designed for cabins and common indoor areas; b. Must include a back box; c. Must have adjustable power taps that cannot be altered by the operator, with a range between 1W and a maximum power being between 5 W and 10 W; and d. It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifier supplied with the system. e. The maximum depth of the unit and back box shall not exceed 115mm (4.5 inches). | Technical data sheet listing dimensions | |
| 50. | MR 86 | <p>The PA system must include a wall mount loudspeaker:</p> <ul style="list-style-type: none"> a. Designed for cabins and common indoor areas; b. Must include a back box; c. Must have adjustable power taps that cannot be altered by the operator, with a range between 1W and a maximum power being between 5 W and 10 W; and d. It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifier supplied with the system. e. The maximum depth of the unit and back box must not exceed 115mm (4.5 inches). | Technical data sheet | |

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| 51. | MR 87 | <p>The PA system must include an explosion proof loudspeaker:</p> <ul style="list-style-type: none"> a. Designed for Helicopter Hangar or fueling stations; b. It must be IEC Ex or ATEX certified; c. Must have, at a minimum, an Ingress Protection rating of IP66 or better; d. Must have adjustable power taps that cannot be altered by the operator, that offers at a minimum a 15 W configuration; and e. It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifier supplied with the system. | Technical data sheet | |
| 52. | MR 88 | <p>The PA system must include a loudhailer:</p> <ul style="list-style-type: none"> a. Designed for top of the wheelhouse; b. Must have, at a minimum, an Ingress Protection rating of IP66 or better; c. Must have adjustable power taps that cannot be altered by the operator, that offers at a minimum a 30 W configuration; and d. It must support a 70 V or 100 V line audio input; | Technical data sheet | |
| 53. | MR 89 | <p>The PA system must include speaker line monitoring:</p> <ul style="list-style-type: none"> a. If a device is meant to be installed at the end of a speaker line, it must have, at a minimum, an Ingress Protection rating of IP66 or better; b. It must be able to detect if there is a fault on the line; and c. The system controller must report this fault. | Technical data sheet | |

4.1.2 Financial Evaluation

SACC Manual Clause [A0222T](#) (2014-06-26), Evaluation of Price-Canadian/Foreign Bidders)

4.2 Basis of Selection - Highest Combined Rating of Technical Merit and Price

1. To be declared responsive, a bid must:
 - a. comply with all the mandatory requirements of the bid solicitation; and
 - b. meet all mandatory criteria as per section 4.1.1.1; and
 - c. obtain the required minimum of 0 points overall for the technical evaluation criteria of Desirable Requirements as per section 4.3 which

are subject to point rating.

The rating is performed on a scale of 200 points.

2. Bids not meeting (a), (b) and (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 40 % for the technical merit and 60 % for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 40%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 60%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 40/60 ratio of technical merit and price, respectively. The total available points equals 200 and the lowest evaluated price is \$100,000 (100).

Basis of Selection - Highest Combined Rating Technical Merit (40%) and Price (60%)

| | Bidder 1 | Bidder 2 | Bidder 3 |
|-------------------------|--------------|--------------|--------------|
| Overall Technical Score | 115/200 | 150/200 | 160/200 |
| Bid Evaluated Price | \$100,000.00 | \$120,000.00 | \$200,000.00 |

| | | | | |
|------------------------|------------------------------|-------------------|-------------------|-------------------|
| Calculations | Technical Merit Score | 115/200 x 40 = 23 | 150/200 x 40 = 30 | 160/200 x 40 = 32 |
| | Pricing Score | 100/100 x 60 = 60 | 100/120 x 60 = 50 | 100/200 x 60 = 30 |
| Combined Rating | | 83 | 80 | 62 |
| Overall Rating | | 1st | 2nd | 3rd |

4.3 Point Rated Technical Criteria

| SOR Ref | Description | Information to be provided | Max Points | Min Points | Max Score Possible | Page number of bid where information can be found |
|---------|---|--|--|--------------------------------------|--------------------|---|
| DR 1. | One (1) rack is desired over two (2). | Rack drawing | 20 points For One equipment rack | 0 points For Two equipment racks | 20 | |
| DR 2. | Priority must be given to the reduction of cabinet depth of less than 32 inches, as space is limited. The UPS may be provided outside of the cabinet, if this results in the physical dimension of the cabinet depth being reduced. | Rack drawing | 10 points per inch less than 32 inches | 0 points if 32 inch rack | 30 | |
| DR 3. | The cabinet must allow inspection of the system controller's status without opening a door. | Rack door drawing, Rack equipment drawing, System controller interface drawing | 5 points If status can be seen | 0 points If status cannot be seen | 5 | |
| DR 4. | The telephone system is desired to be a digital IP-based system. | Technical data sheet | 45 points If IP digital system | 0 points If non-IP system | 45 | |
| DR 5. | All telephone stations are desired to have a built-in speaker that is type approved as part of the | Type approval documentation | 20 points If proof of compliance is | 0 points If proof of complianc | 20 | |

| | PA system. | | provided for bid evaluation | e is not provided for bid evaluation | | |
|-------|--|--|--|---|----|--|
| DR 6. | All telephone stations are desired to be able to be part of the PA zones/groups and broadcast PA announcements. | Type approval documentation | 30 points If proof of compliance is provided for bid evaluation | 0 points If proof of compliance is not provided for bid evaluation | 30 | |
| DR 7. | The telephone system is desired to include a VoIP cellular gateway with a minimum of one (1) external connection. | Technical data sheet | 10 points If proof of compliance is provided for bid evaluation | 0 points If a reference is not provided for bid evaluation | 10 | |
| DR 8. | During PA announcements from a master control station, the local PA speaker, must be muted to not create feedback. a. This is intended to mute the Bridge or the Engine Control Room PA speaker, when an announcement is made from that location. | Documentation describing operation and any related technical data sheets | 25 points If proof of compliance is provided for bid evaluation | 0 points If a reference is not provided for bid evaluation | 25 | |
| DR 9. | The PA system is desired to include the ability to dynamically raise or lower the sound level of a speaker horn based upon ambient noise level. a. This is desired in the Engine Room to prevent the horns from being too loud when the mechanical systems are turned off. b. This noise level must still meet the regulations of 7.2.2.1 and 7.2.2.2 of the International Life-Saving | Documentation describing operation and any related technical data sheet | 15 points If proof of compliance is provided for bid evaluation | 0 points If a reference is not provided for bid evaluation | 15 | |

| | | | | | | |
|--|---------------------------|--|--|--|--|--|
| | Appliances (LSA) code. | | | | | |
|--|---------------------------|--|--|--|--|--|

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Rate or Price Certification

SACC Manual clause [C0002T](#) (2010-01-11)

5.2.3 Price Support

SACC Manual clause [C0008T](#) (2007-05-25)

5.2.4 Best Delivery Date - Bid

Solicitation No. - N° de l'invitation
F7049-210290/C
Client Ref. No. - N° de réf. du client
F7049-210290

Amd. No. - N° de la modif.
File No. - N° du dossier
049md. F7049-210290

Buyer ID - Id de l'acheteur
049MD
CCC No./N° CCC - FMS No./N° VME

While delivery is requested by July 2023, the best delivery that could be offered is _____.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

6.1.1 There is no security requirement applicable to the Contract.

6.2 Statement of Requirement

The Contractor must provide The Ship Internal Communications System for the CCGS Samuel Risley to meet its operational requirements and to provide efficient communications throughout the vessel in both normal and emergency conditions in accordance with the Statement of Requirements at Annex "A".

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010A](#) (2022-12-01), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Delivery Date

All the deliverables must be received on or before _____. *(to be completed upon contract award)*

6.4.2 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at section 3.2 of Annex "A" of the Contract.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Mark Hatherall
Title: Supply Officer
Organization: PWGSC
Address: 11 Laurier Street, Gatineau Quebec, K1A 0S5
Telephone: (343) 540-9460
E-mail: Mark.hatherall@tpsgc-pwgsc.gc.ca

Solicitation No. - N° de l'invitation
F7049-210290/C
Client Ref. No. - N° de réf. du client
F7049-210290

Amd. No. - N° de la modif.
File No. - N° du dossier
049md. F7049-210290

Buyer ID - Id de l'acheteur
049MD
CCC No./N° CCC - FMS No./N° VME

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Technical Authority

The Technical Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____ - ____ - ____
E-mail address: _____

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____ - ____ - ____
E-mail: _____

6.6 Payment

6.6.1 Basis of Payment

In consideration of the Contractor completing all of its obligations under the Contract, the Contractor will be paid a firm price, as specified in Annex "B" Basis of Payment. Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.6.2 Discretionary Audit - Commercial Goods and/or Services

SACC Manual clause [C0100C](#) (2010-01-11)

6.6.3 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

6.7 Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Invoices

1. Invoices are to be made out to:

Attention of: Diane Beaudry-Boucher
dfo.invoicing-facturation.mpo@canada.ca

The original invoice to be forwarded for verification to:

Public Works and Government Services Canada
Refit, Logistics and Small Vessel Construction Directorate
Marine Services and Small Vessel Sector
Attention: Mark Hatherall
Email: Mark.hatherall@tpsgc-pwgsc.gc.ca

2. Canada will only make payment upon receipt of a satisfactory invoice duly supported by specified release documents and any other documents called for under the Contract.
3. The Contractor shall not submit an invoice prior to the completion and acceptance of the Work or shipment of the items to which it relates.

6.8 Certifications and Additional Information

6.8.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions [2010A](#) (2022-12-01), General Conditions - Goods (Medium Complexity);
- (c) Annex A, Statement of Requirement;
- (d) Annex "B", Basis of Payment; and
- (e) the Contractor's bid dated _____.

6.11 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

6.12 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered:

Free on Board (Destination) common carrier to CCG Electronics and Informatics Workshop, in Sarnia, Ontario Address: Unit #8, 1355 Confederation St, Sarnia, ON N7S 4T2 for shipments from the United States government; or

Delivered Duty Paid (DDP) to CCG Electronics and Informatics Workshop, in Sarnia, Ontario Address: Unit #8, 1355 Confederation St, Sarnia, ON N7S 4T2 Incoterms 2000 for shipments from a commercial contractor.

Solicitation No. - N° de l'invitation
F7049-210290/C
Client Ref. No. - N° de réf. du client
F7049-210290

Amd. No. - N° de la modif.
File No. - N° du dossier
049md. F7049-210290

Buyer ID - Id de l'acheteur
049MD
CCC No./N° CCC - FMS No./N° VME

ANNEX "A"

STATEMENT OF REQUIREMENT

See attached Statement of Requirements.



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne

Integrated Technical Services



Safety First; Service Always



Ship Internal Communications Systems

Statement of Requirements

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Canadian Coast Guard
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Record of Amendments

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Section 1 **DOCUMENT MANAGEMENT**

1.1 **Authority**

This document is issued by the Director General, Integrated Technical Services (ITS), CCG's National Technical Authority under delegation from the Deputy Minister, Fisheries and Oceans and the Commissioner of the Canadian Coast Guard.

1.2 **RESPONSIBILITY**

Electronics and Informatics, Shipboard Electronics division, is responsible for:

- the creation and promulgation of the document; and
- the identification of an Office of Primary Interest (OPI) who is responsible for the coordination and the content of the document.

The OPI is responsible for:

- validity and accuracy of the content;
- availability of this information;
- update as needed;
- periodical revision; and
- follow-up of all requests, comments and/or suggestions received by the OPI.

Section 2 **Background Information**

2.1 Purpose

The Canadian Coast Guard (CCG), a Special Operating Agency of the Department of Fisheries and Oceans (DFO), owns and operates the federal government's civilian vessel fleet. The Oceans Act gives the Minister of Fisheries and Oceans responsibility for providing:

- a. Aids to Navigation
- b. Marine communications and traffic management services
- c. Ice breaking and ice-management services
- d. Channel maintenance
- e. Marine search and rescue
- f. Marine pollution response
- g. Support to other government departments, boards and agencies by providing ships, aircraft and other services

CCG has a requirement for a Ship Internal Communications System for the CCGS Samuel Risley to meet its operational requirements and to provide efficient communications throughout the vessel in both normal and emergency conditions.

2.2 Scope

The purpose of this SOR is to detail the non-technical and technical requirements for a Commercial-off-the-Shelf (COTS) Ship Internal Communications System (SICS).

In this document, requirements are preceded by: (MR) for mandatory requirements and (DR) for desired requirements.

2.3 Objectives

The CCG has a requirement for the procurement of a SICS on the CCGS Samuel Risley. This system will upgrade the existing legacy telephone (PBX) and public address (PA) system on the vessel.

2.4 Applicable Documents

The following table contains a list of standards or regulations to which this document makes reference.

International Regulations and Publications, the Government of Canada Acts and Publications are not supplied by Canada.

Table 1: Applicable Documents

| Date | Revision | Document Name |
|-----------------|-------------------------|--|
| All | All | Institute of Electrical and Electronics Engineers (IEEE) 802.3 Standard |
| August 2002 | 4 th edition | International Electrotechnical Commission (IEC) 60945: Maritime Navigation and Radiocommunication Equipment and systems – General Requirements – Methods of Testing and Required Test Results |
| 18 January 2010 | N/A | International Maritime Organization (IMO) Resolution A.1021(26), Code on Alerts and Indicators |
| 2017 | N/A | International Maritime Organization (IMO) International Life-Saving Appliance (LSA) Code, 2017 Edition |
| 30 June 1997 | N/A | International Maritime Organization (IMO) MSC/Circular.808, Recommendation on Performance Standards for Public Address Systems on Passengers Ships, Including Cabling – Adopted on 30 June 1997. |
| | | TP 127E Ships Electrical Standards, Section 21 |

2.5 Acronyms

The following table contains a list of acronyms and abbreviations to which this document makes reference.

Table 2: Acronyms and Abbreviations

| Abbreviation | Description |
|--------------|---|
| CCG | Canadian Coast Guard |
| DR | Desired Requirement |
| DECT | Digital Enhanced Cordless Telecommunications |
| ECR | Engine Control Room |
| FA | Fire Alarm |
| FXO | Foreign Exchange Office |
| GA | General Alarm |
| Hz | Hertz |
| IP | International (Ingress) Protection Marking |
| IP | Internet Protocol |
| IACS | International Association of Classification Societies |
| ICS | Integrated Communications System |

| | |
|-------|--|
| IEC | International Electrotechnical Commission |
| IMO | International Maritime Organization |
| MR | Mandatory Requirement |
| MCR | Machinery Control Room |
| OPI | Office of Primary Interest |
| PA | Public Address |
| PC | Personal Computer |
| PDF | Portable Document Format |
| PTT | Push To Talk |
| RU | Rack Unit |
| SICS | Shipboard Integrated Communications System |
| SOLAS | Safety of Life at Sea |
| SOR | Statement of Requirements |
| TC | Transport Canada |
| TSOR | Technical Statement of Requirement |
| UPS | Uninterruptible Power Supply |
| VAC | Volts Alternating Current |
| VDC | Volts Direct Current |
| VOIP | Voice Over Internet Protocol |

2.6 Terminology

- a) Flush mount means a mounting configuration where an item is fit into a cavity in a surface but a portion protrudes slightly. This allows the surface and equipment to appear flush to one another.
- b) Desk mount means a mounting configuration where the entire item is mounted onto a horizontal flat surface in an upright position.
- c) Wall mount means a mounting configuration where the entire item is mounted onto a vertical flat surface.
- d) Cat.6A cable means a Category 6A Network cable.
- e) Patch cord means a length of network cable terminated with connectors on both ends.
- f) Loop A and Loop B configuration means a configuration where two (2) loops of speakers provide overlapping coverage. If one of the loops fails, the area is still covered by the PA system.
- g) Field cables refers to cables that are run externally to the central equipment.

Section 3 **GENERAL REQUIREMENTS**

3.1 **Documentation**

3.1.1 **General**

- MR. 1.** All documentation developed or supplied under this contract must be in reproducible hard copy and native electronic format (Microsoft Word, Excel, etc., or searchable PDF format).
- MR. 2.** All drawings developed or supplied under this contract must be in reproducible hard copy and AutoCAD electronic format.
- MR. 3.** All documentation must be provided in English.
- MR. 4.** All installation instructions, service, maintenance and operator manuals must be supplied in searchable PDF format.
- MR. 5.** Applicable operator manuals must also be supplied in both hard copy and electronic formats with the purchase of the system.

3.1.2 **Maintenance**

- MR. 6.** The commercial documentation supplied with the equipment must identify all necessary corrective and preventative maintenance tasks or procedures.

3.1.3 **Vessel Specific**

- MR. 7.** A complete drawing package must be available, which includes, at a minimum, the following :
- a. Complete internal cabinet wiring diagrams including identification of all components, terminal blocks, connectors, cable identification;
 - b. General Arrangement of the vessel with the Public Address equipment layout;
 - c. General Arrangement of the vessel with the Telephone System equipment layout;
 - d. Public address wiring diagram including speakers, junction boxes, cabinet terminal blocks, cable type and cable identification;
 - e. Telephone System wiring diagram including telephones, headsets, visual indicators, cabinet, terminal blocks, power feeds;
 - f. List of VLANs assigned to each of the network switch ports, if required, as part of the system; and
 - g. Document detailing the programming/configuration of the system.
- MR. 8.** A factory test report must be provided for the procured system.

3.2 DELIVERY LOCATIONS

MR. 9. The contractor must deliver equipment to the following address:

CCG Electronics and Informatics Workshop, in Sarnia, Ontario

Address: Unit #8, 1355 Confederation St, Sarnia, ON N7S 4T2

MR. 10. Each item must be packaged in accordance with standard commercial practice. Packaging used must provide a sufficient level of protection to ensure that the contents will arrive safe from damage and that items can be stored in the supplied packaging.

Section 4 General Technical Requirements

4.1 General

- MR. 11.** The Shipboard Integrated Communications System (SICS) must be Type Approved by a Classification Society that is recognized by Transport Canada.
- MR. 12.** The Shipboard Integrated Communications System (SICS) equipment must be certified to the following standards:
- a. IEC 60945;
 - b. IMO MSC/Circ. 808;
 - c. IMO LSA Code VII 7.2; and
 - d. IMO A.1021(26) Code on alert and indicators (2009).
- MR. 13.** The Shipboard Integrated Communications System (SICS) must consist of:
- a. A telephone system;
 - b. A Public address system
 - c. A Talkback system – It is acceptable for this requirement to be provided by the telephone or PA system
- MR. 14.** In addition to specific equipment requirements, all ancillary equipment required to configure a complete functioning system must be provided.

4.2 Cabling And Connectors

- MR. 15.** The Ship Internal Communication System must be able to use the existing **16 AWG – 2 conductor** multi-pair cabling on the ship. These currently are fed from the central equipment to each:
- a. Telephone
 - b. PA Speaker Loop
 - c. Signaling Beacon
 - d. Talkback Speaker
 - e. Call-in Button
- MR. 16.** All master control heads may operate off new cabling and do not have to use the existing multi-pair cables.
- a. All cable will be marine type approved
 - b. All Cat 6A cabling must use shielded cable and connectors.
 - c. If a specialty cable is required, it will be provided with the system.
- MR. 17.** In addition to any cabling requirement in other sections of this document, the following cables must be supplied at a minimum:
- a. Except for equipment that has a terminal block designed to be used for

power connections, each piece of equipment must be supplied with a matching power cable, if required.

Section 5 **Shipboard Integrated Communications System (SICS) Requirements**

5.1 **General**

5.1.1 Equipment Cabinet

General Equipment Cabinet Requirements

- MR. 18.** The cabinet must contain the SICS core equipment, and all equipment and materials for the end device connectivity and termination. This includes, but not limited to, speakers, telephones, talkback, visual indicator, audio inputs, etc.
- MR. 19.** The equipment must fit in one (1) rack measuring not more than 6 feet high, 24 inches wide by 32 inches deep **OR** (2) racks not more than 48 inches high, 24 inches wide by 32 inches deep.
- DR. 1.** One (1) rack is desired over two (2).
- DR. 2.** Priority must be given to the reduction of cabinet depth, as space is limited. The UPS may be provided outside of the cabinet, if this results in the physical dimension of the cabinet depth being reduced.
- MR. 20.** The cabinet must have an internal 19 inches fixed frame.
- MR. 21.** The cabinet must be fully tested at the factory and delivered pre-assembled.
- MR. 22.** The cabinet must come prepared with proper ventilation to allow sufficient air flow for the cooling of equipment.
- MR. 23.** The cabinet must come prepared with a chassis grounding point.
- MR. 24.** The cabinet must have an option for a cable access through the top of the cabinet.
- DR. 3.** The cabinet must allow inspection of the system controller's status without opening a door.
- MR. 25.** All equipment must be accessible from the front of the cabinet.
- MR. 26.** It must have a front door on hinges.

5.1.2 Network Equipment

- MR. 27.** Any network switches that are used must include a patch panel that is, at a

minimum, the same number of ports as the switch.

- a. The patch panel must include the RJ45 Jack connector to terminate field Cat.6A cables.

MR. 28. The SICS must include enough Cat.6A patch cords to connect the network switches to the patch panel.

5.1.3 Power Input

MR. 29. The system controllers, amplifiers, network switches must allow, at a minimum, a power input of 110-230Vac, 60Hz.

MR. 30. The integrated systems must have automatic switch-over facilities from the main (110-230Vac, 60Hz) and emergency power sources (110-230Vac, 60Hz).

MR. 31. The integrated systems must have an Uninterruptible Power Supply (UPS) to provide clean and conditioned power to the integrated systems during blackout conditions and during the switch over from main and emergency power sources.

- a. The UPS must be able to provide, at a minimum, 30 minutes of run time.
- b. The UPS must be shipboard approved by a classification society recognized by Transport Canada.

5.1.4 Fault Alert

MR. 32. All fault conditions must provide a visible indication in both the equipment cabinet, as well as on the master control heads.

MR. 33. The integrated system must provide the following discrete alarm outputs:

- a. Main/Emergency failure system A;
- b. Main/Emergency failure system B
 - c. UPS failure system A;
 - d. UPS failure system B;
 - e. PA system fault system A;
 - f. PA system fault system B; and
 - g. Telephone System fault.

5.1.5 Talkback System

MR. 34. If the talkback feature is not present on the telephones, it is required to be present as part of the PA system.

MR. 35. The talkback feature must allow a designated master station to ring individual talkback stations.

MR. 36. The talkback feature must allow one or more designated master stations to

ring a group of talkback stations.

- MR. 37.** The talkback feature must allow a talkback station to ring a pre-configured master station by pressing a single button.
- MR. 38.** The communication must be full-duplex and it must be hands-free.
- MR. 39.** The talkback stations must also broadcast PA announcements and alarms in accordance with the zone they are part of.
- MR. 40.** The SICS system must include an exterior type talkback loudspeaker;
- Designed for outdoor decks and high noise areas;
 - It must be rugged;
 - Must have, at a minimum, an Ingress Protection rating of IP66 or better;
 - Must have, at a minimum, 10W speaker;
 - It must include, at a minimum, one (1) call button; and
 - Must allow for hands free operation;
- MR. 41.** The ICS system must include a talkback station designed for explosion proof areas;
- It must have, at a minimum, an Ingress Protection rating of IP66.
 - It must be a rugged type station;
 - It must have a built-in interface for a headset;
 - Must have, at a minimum, 10W speaker;
 - It must have hands-free communication capability;
 - It must include, at a minimum, one (1) call button; and
 - It must be IEC Ex or ATEX certified.

5.1.6 Strobe Beacon

- MR. 42.** The ICS system must include a visual indicator:
- It must have, at a minimum, an Ingress Protection rating of IP66;
 - It must be powered by 120VAC;
 - It must include an LED light that is green; and
 - It must be a strobe light type (not rotating light type).
- MR. 43.** The beacon must flash to indicate an incoming talkback call of the connected station.
- MR. 44.** The beacon must flash to indicate an incoming phone call of the connected station.
- MR. 45.** A visual indicator for a user terminal must be turned on when a call is received on the user terminal and must be turned off when the call is

answered or terminated.

5.2 Telephone System

5.2.1 Core Equipment

General

MR. 46. The telephone system must be approved as part of the Shipboard Integrated Communications System (SICS).

MR. 47. The telephone system must be a digital system.

DR. 4. The telephone system is desired to be a digital IP-based system.

MR. 48. The existing ICS ship cable will be reused; Therefore, the telephones must communicate with the core equipment over the existing **16 AWG-2 wire cable**.

MR. 49. The telephone system must provide operator free dialing and communication for incoming and outgoing calls between all internal telephone stations.

MR. 50. Each telephone must be able to dial all other telephones on board, access analogue trunks and onboard communication systems such as a cellular terminal and satellite phones, if so programmed.

5.2.2 Features

General

MR. 51. The telephone system must have the following features:

- a. Caller ID;
- b. Call forwarding;
- c. Forward on busy;
- d. Call Pick-Up;
- e. Call park;
- f. 3-way conferencing;
- g. Wake up system;
- h. Programmable from Web Interface or software running on a PC; and
- i. Auto attendant/External calls

MR. 52. The telephone system must have a call routing feature allowing the system to route external incoming calls to a specific telephone station or to an auto

attendant.

- MR. 53.** The telephone system must have an auto attendant function.
- a. The auto attendant function must allow the user to record a voice message.
 - b. The auto attendant function must allow the user to change the recorded voice message from a specifically programmed phone.
 - c. The auto attendant function must provide the incoming caller with the ability to select specific stations throughout the vessel.

Night Bells

- MR. 54.** The telephone system must have a “night bells” feature.
- a. The night bells feature allows for the ability to have calls that would normally ring in the wheelhouse, for example, to ring in one or multiple different locations.
 - b. This feature must be able to be activated and deactivated from an authorized telephone station.
- MR. 55.** The night bells feature must have at minimum, two (2) configurable ring groups.

5.2.3 External Interfaces

Public Address

- MR. 56.** The telephone system must interface with the PA system and be approved as part of the PA system.
- MR. 57.** All telephone stations must be able to activate the PA system with live (non-recorded) messages, if so programmed.
- MR. 58.** The specifically programmed telephone station must be able to select which broadcast zones will broadcast the live PA announcement.
- DR. 5.** All telephone stations are desired to have a built-in speaker that is type approved as part of the PA system.
- DR. 6.** All telephone stations are desired to be able to be part of the PA zones/groups and broadcast PA announcements.

External Communications

- MR. 59.** The telephone system must include a minimum of four (4) analog external lines.
- DR. 7.** The telephone system is desired to include a VoIP cellular gateway with a minimum of one (1) external connection.
- MR. 60.** The telephone system must be configurable to limit external communication lines’ access to specifically programmed telephone stations.

- MR. 61.** The telephone system must be able to interface with cellular and satellite phones.
- MR. 62.** All external lines must be able to be programmed to a telephone extension.

5.2.4 End Devices

- MR. 63.** The telephone system must include a master station:
- It must be flush mountable (console);
 - It must have physical buttons and not use a touchscreen for operation;
 - It must include a full-dial pad;
 - It must include a handset;
 - It must include a marine handset retainer;
 - It must have hands-free communication capability; and
 - It must include, at a minimum, thirty (30) speed dial selections.
- MR. 64.** The telephone system must include a telephone designed for cabins and common areas:
- It must be wall and desk mountable;
 - It must include a full-dial pad;
 - It must include a handset;
 - It must include a marine handset retainer;
 - It must have hands-free communication capability; and
 - It must include, at a minimum, ten (10) speed dial selections.
- MR. 65.** The telephone system must include a telephone station designed for high noise areas:
- It must have, at a minimum, an Ingress Protection rating of IP66.
 - It must be a rugged type station;
 - It must have a built-in interface for a headset;
 - It must support external visual indicator activation;
 - It must include, at a minimum, one (1) speed dial selection.
- MR. 66.** The telephone system must include a telephone station designed for an outdoor deck within an enclosure:
- It must have, at a minimum, an Ingress Protection rating of IP66.
 - It must be a rugged type station;
 - The entire station must be enclosed with a door for access;

- d. It must have a built-in interface for a headset;
- e. It must include, at a minimum, one (1) speed dial selection.

MR. 67. The system must include a wired headset for a high noise area station:

- a. It must have a Push-To-Talk (PTT) microphone;
- b. It must be able to interface with the outdoor and high noise area station;
- c. It must provide ear protection; and
- d. It must include a cable with a minimum length of 10 meters.

MR. 68. If any equipment is required at the device end of cable, and that equipment is not internal to the field device, a mounting box must be provided to enclose the equipment.

- a. The box must be wall mountable;
- b. The box must include a minimum of (1) connector for the field device; and
- c. The box must include means of identifying/labelling the port.

Digital Enhanced Cordless Telecommunications (DECT) requirements

MR. 69. Any DECT equipment must be approved for use in Canada by Industry Canada.

- a. It must include a base unit.
- b. It must include portable phones with individual chargers.
- c. Each portable phone must have their unique telephone extension number.
- d. Portable phones must NOT broadcast PA announcements or any alarms.

MR. 70. The DECT system must be part of the Telephone System.

5.3 Public Address (PA) System

5.3.1 Core Equipment

MR. 71. The existing ICS ship cable will be reused; Therefore, the PA speakers must interface with the core equipment over the existing **16 AWG-2 wire cable**.

MR. 72. The PA system must include amplifier(s):

- a. The PA Amplifier(s) must have redundant interfaces;
- b. The PA Amplifier(s) must have, at a minimum, two (2) independent output channels;
- c. The PA Amplifier must be continuously rated for the maximum power they are required to deliver into the system for audio and for alarm tone signals; and
- d. The PA amplifier must support 70 V or 100 V line output.

MR. 73. The PA system must include one system controller for Loop A and one for Loop B:

- a. The PA controller must include the system controls and monitoring functions; and
 - b. Loop A and Loop B PA controllers must be able to automatically take control of each other systems if either PA controller fails.
- MR. 74.** The PA system must provide routine and emergency broadcast PA facilities.
- MR. 75.** The PA system must provide the option to broadcast to selected areas (broadcast zones) of the vessel.
- MR. 76.** The PA system must allow programming at a minimum, six (6) zones and three (3) groups of zones. The following are the desired zones:
- a. All Call
 - b. All Call, No Cabins
 - c. Deck Group
 - d. Work Group
 - e. General Group
 - f. Cabins Group
- MR. 77.** The PA must mute the General Alarm and Fire Alarm during a PA announcement and unmute the alarm when the PA announcement has concluded.
- MR. 78.** Any GA or PA visual indicator must not be affected by the muting of an audible alarm during a PA announcement.
- MR. 79.** The PA system must have a control and monitoring element that is accessible from a web browser or a software running on a PC.
- MR. 80.** The PA system must include any required security dongles to allow use of the control and monitoring element of the system.

5.3.2 External Interfaces

Telephone System

Refer to section 5.2.3 for details on the PA/Telephone System interface requirement.

- DR. 8.** During PA announcements from a master control station, the local PA speaker, must be muted to not create feedback.
- a. This is intended to mute the Bridge or the Engine Control Room PA speaker, when an announcement is made from that location.

General Alarm (GA)

- MR. 81.** The PA system must include a discrete signal to mute an external GA/FA

system during PA announcements.

- MR. 82.** The mute must be deactivated as soon as the PA announcement has concluded.

5.3.3 Equipment and End Devices

- MR. 83.** The PA system must include a PA Mater Control head:
- Controls Heads must include a microphone and speaker;
 - It must have physical buttons and not use a touchscreen for operation;
 - Control heads must include a dedicated selection for each of the PA system broadcast zones and groups of broadcast zones;
 - The PA system must broadcast PA messages to the broadcast zones corresponding to the selected button;
 - The PA system must have an emergency override function that is accessible from the PA control head that gives immediate access to the PA speakers, while restoring all speakers to their native sound levels.
- MR. 84.** The PA system must include a horn type loudspeaker:
- Intended use is for machinery spaces and outdoor decks;
 - Must have, at a minimum, an Ingress Protection rating of IP66 or better;
 - Must have adjustable power taps that cannot be altered by the operator, that offers at a minimum a 15 W configuration; and
 - It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifiers supplied with the system.
- MR. 85.** The PA system must include a ceiling flush-mount loudspeaker:
- Designed for cabins and common indoor areas;
 - Must include a back box;
 - Must have adjustable power taps that cannot be altered by the operator, with a range between 1W and a maximum power being between 5 W and 10 W; and
 - It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifier supplied with the system.
 - The maximum depth of the unit and back box must not exceed 115mm (4.5 inches).
- MR. 86.** The PA system must include a wall mount loudspeaker:
- Designed for cabins and common indoor areas;
 - Must include a back box;
 - Must have adjustable power taps that cannot be altered by the operator,

with a range between 1W and a maximum power being between 5 W and 10 W; and

- d. It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifier supplied with the system.
- e. The maximum depth of the unit and back box must not exceed 115mm (4.5 inches).

MR. 87. The PA system must include an explosion proof loudspeaker:

- a. Designed for a Helicopter Hangar or fueling stations;
- b. It must be IEC Ex or ATEX certified;
- c. Must have, at a minimum, an Ingress Protection rating of IP66 or better;
- d. Must have adjustable power taps that cannot be altered by the operator, that offers at a minimum a 15 W configuration; and
- e. It must support a 70 V or 100 V line audio input and it must be compatible with the PA Amplifier supplied with the system.

MR. 88. The PA system must include a loudhailer:

- a. Designed for top of the wheelhouse;
- b. Must have, at a minimum, an Ingress Protection rating of IP66 or better;
- c. Must have adjustable power taps that cannot be altered by the operator, that offers at a minimum a 30 W configuration; and
- d. It must support a 70 V or 100 V line audio input;

MR. 89. The PA system must include speaker line monitoring:

- a. If a device is meant to be installed at the end of a speaker line, it must have, at a minimum, an Ingress Protection rating of IP66 or better;
- b. It must be able to detect if there is a fault on the line; and
- c. The system controller must report this fault.

DR. 9. The PA system is desired to include the ability to dynamically raise or lower the sound level of a speaker horn based upon ambient noise level.

- a. This is desired in the Engine Room to prevent the horns from being too loud when the mechanical systems are turned off.
- b. This noise level must still meet the regulations of **7.2.2.1** and **7.2.2.2** of the **International Life-Saving Appliances (LSA) code**.

5.4 Commissioning Support

- MR. 90.** The contractor must supply a specialized technician who will provide on-site commissioning support to an installation of equipment that was completed by CCG.
- MR. 91.** The commissioning support must include:
- a. Verification that the system was installed in accordance with each component's manufacturer's recommendations;
 - b. Troubleshooting in the case that a device or software is not functioning as expected. Troubleshooting must be provided until the issue is resolved or an agreed upon resolution plan is put in place;
 - c. A question period where CCG technicians may ask questions about the equipment to better understand its functions. For questions that cannot be answered during this period, the contractor's envoy must follow up with a response within 5 business days after the commissioning support is complete.
 - d. Assist and attend testing with the onboard ABS inspection of the system.
- DR. 10.** The specialized technician providing commissioning support must have at least three (3) years' experience servicing this type of equipment.

CCGS SAMUEL RISLEY DEVICES

5.5 LOCATION OF SPEAKERS

5.5.1 BRIDGE DECK & WHEELHOUSE TOP:

1 Flush Mount Ceiling Speaker

- 1 Navigating bridge

2 Loud Hailers

- 1 Starboard Searchlight
- 1 Port Searchlight

2 Exterior Horn Speakers

- 1 Wheelhouse Top FWD
- 1 Fire Monitor Platform Forward

2 Exterior Talkback Speakers with Call-In button

These talkback stations must call the Bridge Master Station

- 1 Bridge Deck Forward (FR 42)
- 1 Fire Monitor Platform (FR 34)

5.5.2 FOCSLE DECK:

1 Exterior Talkback Speakers with Call-In button

These talkback stations must call the Bridge Master Station

- 1 Focsle FWD (FR 44)

2 Flush Mount Ceiling Speaker

- 2 Focsle Deck Hallway

1 Bulkhead Mount Interior Speaker

- 1 Communication Room (FR 44)

5.5.3 BOAT DECK

5 Flush Mount Ceiling Speaker

- 1 Stairwell
- 4 Hallways

2 Exterior Talkback Speakers with Call-In button

These talkback stations must call the Bridge Master Station

- 1 Port Lifeboat Stn Talkback (Fr 23)
- 1 Stbd Liferaft Talkback (Fr 34)

2 Interior Horn Speakers

- 2 Forward Stores

5.5.4 MAIN DECK

2 Exterior Talkback Speakers with call-in button

These talkback stations must call the Bridge Master Station

- 1 Port Capstan (FR 4)
- 1 Stbd Capstan (FR 4)

8 Flush Mount Ceiling Speaker

- 1 Galley
- 1 Mess
- 1 Multi-purpose Room
- 1 Central Stores
- 4 Hallways

1 Horn Speaker

- 1 Winch Room

2 Talkback Stations with Headsets

These talkback stations must call the Bridge Master Station.

These should trigger an attached green beacon.

- 1 Emergency Generator Room
- 1 Deck Workshop

2 Explosion-Proof Talkback Exterior Speakers

- 1 Fuel Stn Port
- 1 Fuel Stn Starboard

5.5.5 BELOW MAIN DECK

5 Talkback Stations with Headsets

These talkback stations must all call the Engine Control Room Master Station.

These should trigger an attached green beacon.

- 1 Hatch Dry Stores

- 1 Engine Room
- 1 Aux Flats
- 1 Stern Thruster
- 1 Steering Compartment

7 Horn Speakers

- 1 Cargo Hold
- 1 ER Workshop
- 1 Dry stores
- 1 Hatch Dry Stores
- 1 Engine Room
- 1 Aux Flats
- 1 Steering Compartment

1 Flush Mount Ceiling Speaker

- 1 Engine Control Room

5.5.6 THRUSTER COMPARTMENT

1 Talkback Station with Headset

These talkback stations must call the Engine Control Room Master Station
These should trigger an attached green beacon.

- 1 Bow Thruster

1 Horn Speaker

- 1 Bow Thruster

5.6 LOCATION OF TELEPHONES & CONTROL STATIONS

5.6.1 BRIDGE DECK & WHEELHOUSE TOP:

2 Master PA Control Stations

- 1 Bridge Forward Console
- 1 Bridge Aft Winch Console

2 Master Telephone Control Stations

- 1 Bridge Forward Console
- 1 Bridge Aft Winch Console

1 DECT Wireless Base Station

- 3 handsets with 3 chargers

1 Desk Phone

- 1 Bridge Rear

5.6.2 FOCSSLE DECK:

4 Desk Phones

- 1 Chief Officers Cabin
- 1 Logistics Officer Cabin
- 1 Senior Engineer Cabin
- 1 Communication Room

2 Bulkhead Mount Phones

- 1 Captains Night Bunk
- 1 Chief Engineers Night Bunk

2 DECT Wireless Base Station

- Captains Cabin (1 handset and 1 charger)
- Chief Engineers Cabin (1 handset and 1 charger)

1 Exterior Bulkhead Telephone with Handset in Enclosure

- Focssle Deck FWD (FR 44)

5.6.3 BOAT DECK

12 Desk Phones

- 1 E.R Tech cabin
- 1 Bosun cabin
- 1 Chief Cook cabin
- 1 in Oilers cabin
- 1 2 Quartermasters Cabin
- 1 Supernumeraries Cabin
- 1 2 Cadets Cabin
- 1 2nd Engineer Cabin
- 1 3rd Engineer Cabin
- 1 2nd Officer Cabin
- 1 3rd Officer Cabin
- 1 Engineering Office

3 Rugged Bulkhead Phones

- 1 Forward Stores
- 1 Stack compartment
- 1 Crane Cab

1 DECT Wireless Base Station

- Ships office (2 handsets and 2 chargers)

5.6.4 MAIN DECK

5 Desk Phones

- 1 Seamen AFT cabin
- 1 Clerk cabin
- 1 Seaman FWD cabin
- 1 Steward cabin

Main area for incoming call answer, forwarding, voice mail etc.

- 1 Quartermasters Booth (Attendant Console)

2 Bulkhead Phones

- 1 Galley
- 1 Central Stores

1 Rugged Bulkhead Phone, 1 Green Illuminator, 1 Headset

- 1 Emergency generator, 1 Green Illuminator, 1 Headset

1 Rugged Bulkhead Phone, 1 Green Illuminator, 1 Handset

- 1 Deck Workshop with Handset

3 DECT Wireless Base Stations

- Multipurpose room (1 handset and 1 charger)
- Winchman Cabin (1 handset and 1 charger)
- Mess (1 handset and 1 charger)

5.6.5 BELOW MAIN DECK

4 Rugged Bulkhead Phones, 4 Green Illuminators, 4 Headsets

- 1 Engine Room with Green indication beacon and headset
- 1 Aux Flats with Green indication beacon and headset
- 1 Stern Thruster with Green indication beacon and headset
- 1 Steering Gear with Green indication beacon and headset

1 Rugged Bulkhead Phone, 1 Green Illuminator

- 1 Dry Stores, 1 Illuminator in Freezer

1 Master Control station, 1 Green Illuminator, 1 External Ringer

- 1 Engine Control Room (FR 22)

5.6.6 BOW THRUSTER COMPARTMENT

1 Rugged Bulkhead Phone, 1 Green Illuminator, 1 Headset

- 1 Bow Thruster

ANNEX "B"

BASIS OF PAYMENT

The Bidder must provide a price for a Ship Internal Communications System (SICS) in accordance with the mandatory requirements of Annex "A".

The Bidder must provide prices for the Desired Requirements as per section 4.3 - Point Rated Criteria.

Both the mandatory Ship Internal Communications System (SICS) price and the Point Rated Criteria price will be evaluated.

Mandatory Ship Internal Communications System (SICS)

| Description | Price per Complete Unit | Number Required | Total |
|---|-------------------------|-----------------|-------|
| Ship Internal Communications System (SICS) | \$ | 1 | \$ |
| Total Estimated Price for SICS System (applicable taxes excluded) | | | \$ |

Point Rated Desired Requirements

| SOR Reference | Description | Price |
|---------------|--|-------|
| DR 1. | One (1) rack is desired over two (2). | \$ |
| DR 2. | Priority shall be given to the reduction of cabinet depth, as space is limited. The UPS may be provided outside of the cabinet, if this results in the physical dimension of the cabinet depth being reduced. | \$ |
| DR 3. | The cabinet must allow inspection of the system controller's status without opening a door. | \$ |
| DR 4. | The telephone system is desired to be a digital IP-based system. | \$ |
| DR 5. | All telephone stations are desired to have a built-in speaker that is type approved as part of the PA system. | \$ |
| DR 6. | All telephone stations are desired to be able to be part of the PA zones/groups and broadcast PA announcements. | \$ |
| DR 7. | The telephone system is desired to include a VoIP cellular gateway with a minimum of one (1) external connection. | \$ |
| DR 8. | During PA announcements from a master control station, the local PA speaker, must be muted to not create feedback. a. This is intended to mute the Bridge or the Engine Control Room PA speaker, when an announcement is made from that location. | \$ |
| DR 9. | The PA system is desired to include the ability to dynamically raise or lower the sound level of a speaker horn based upon | \$ |

Solicitation No. - N° de l'invitation
 F7049-210290/C
 Client Ref. No. - N° de réf. du client
 F7049-210290

Amd. No. - N° de la modif.
 File No. - N° du dossier

Buyer ID - Id de l'acheteur
 049MD
 CCC No./N° CCC - FMS No./N° VME
 049md. F7049-210290

| | | |
|---|--|----|
| | ambient noise level. a. This is desired in the Engine Room to prevent the horns from being too loud when the mechanical systems are turned off. b. This noise level must still meet the regulations of 7.2.2.1 and 7.2.2.2 of the International Life-Saving Appliances (LSA) code. | |
| Total Estimated Price for Point Rated DRs (applicable taxes excluded) | | \$ |

| | |
|---|----|
| Total Evaluated Bid | |
| Mandatory SICS System - Total Estimated Price (applicable taxes excluded) | \$ |
| Point Rated DR - Total Estimated Price (applicable taxes excluded) | \$ |
| Total Estimated Price (applicable taxes excluded) | \$ |

Solicitation No. - N° de l'invitation
F7049-210290/C
Client Ref. No. - N° de réf. du client
F7049-210290

Amd. No. - N° de la modif.
File No. - N° du dossier

Buyer ID - Id de l'acheteur
049MD
CCC No./N° CCC - FMS No./N° VME
049md. F7049-210290

ANNEX "C" to PART 3 OF THE BID SOLICITATION

ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts any of the following Electronic Payment Instrument(s):

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)

