Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

RETURN RESPONSES TO:
RETOURNER LES RÉPONSES À:

PWGSC Bids Receiving Unit
Place Bonaventure, 7th Floor
South-East Portal
800 De la Gauchetière St. West
Montreal, Quebec, Canada
H5A 1L6

Module de réception des soumissions de TPSGC
Place Bonaventure, 7ᵉ étage
Portail Sud-Est
800 rue De la Gauchetière Ouest
Montréal, Québec, Canada
H5A 1L6

SOLICITATION ADMENDMENT
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

Space Programs Directorate (MTD Division)
6767 route de l'Aéroport
Longueuil, Quebec, Canada
J3Y 8Y9

Titre – Sujet	
Multi-mission Antenna Reservation System (ARS) for the Canadian Space Agency (CSA)	
Solicitation No. - N° de l'invitation	Amendment No. - N° modif.
9F044-14-0394	001
Client Reference No. - N° de référence du client	**Date**
9F044-14-0934	August 27, 2015
GETS Ref. No. - N° de réf. de SEAG	
PW-15-00690227	
File No. - N° de dossier	**CCC No./N° CCC - FMS No/N° VME**
9F044-14-0934	N/A

Solicitation Closes - L'invitation prend fin :	**Time Zone** **Fuseau horaire**
at - à 2:00 pm **On - le** Thursday, September 24, 2015	Eastern Daylight Time (EDT)

F.O.B - F.A.B.

Plant-Usine : ☐   Destination : ☐   Other-Autre : ☒

Address Enquiries to: - Adresser toutes questions à:	**Buyer Id - Id de l'acheteur**
Pierre Letendre	205mtd
Telephone No. - N° de téléphone	**E-mail address - Adresse Courriel**
450-926-5173	pierre.letendre@tpsgc-pwgsc.gc.ca

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
Canadian Space Agency
6767 route de l'Aéroport
Longueuil, Quebec, Canada
J3Y 8Y9

Instructions : See Herein
Instructions : Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
See herein	

Vendor / Firm Name and Address
Raison sociale et addresse 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**

Canada

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PROJECT TITLE

**Multi-mission Antenna Reservation System (ARS) for the
Canadian Space Agency (CSA)**

This Amendment 001 provides answers to a list of questions raised by potential Bidders as of August,25, 2015 (Section 1).

This Amendment 001 also provides corrections to the RFP following questions raised by potential Bidders as of August 25 2015 (Section 2).

ALL OTHER TERMS AND CONDITIONS OF THE RFP REMAIN UNCHANGED.

****

AMENDMENT 001 - SECTION 1: ANSWERS TO QUESTIONS RECEIVED

1. **As per Part 2 – Bidder Instructions, Section 2.2.1 of the RFP, a Mandatory Non-Disclosure Agreement is required to request of the Contracting Authority reference documents identified in the RFP Statement of Work. We would request a revision to clause 15 of the NDA to limit liability to direct damages. Please advise if a revised NDA is possible.**

   Answer: *With respect to the clause 15 of the NDA included into our RFP package as Annex ''D'', this clause 15 is a direct flow-down of Canada's own obligation towards the author of those two documents (RD1 & RD2). Consequently, we are not willing to change it in order to limit the liability only to direct damages. As it is our expectation that the disclosure of those two documents will be strictly limited to those few individuals who have a legitimate need-to-access, we believe that the degree of risk to be assumed by the Bidders (or eventually by the chosen ARS Contractor) is low and thus acceptable.*

2. **Could you please clarify as to where the bids should be sent: On Page 1 of the bid solicitation, it says ''Return Responses to Space Programs Directorate 6767 route de l'Aéroport…'' but on page 9 of 73, under 2.2 SUBMISSION OF BIDS, it says Bids are to be sent to Place Bonaventure.**

   Answer: *The Bids are required to be submitted as per article 2.2 which means that they must be delivered to the PWGSC Bid Receiving Unit at Place Bonaventure. This error is now corrected through this Amendment (see page 1).*

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3. **The RFP specifies that: _''The ARS solution will be initially used by the Canadian Space Agency, however, this bid solicitation will also allow Canada to make the ARS solution available to any government departments (as those terms are defined in the Financial Administration Act) or any other party for which the Department of Public Works and Government Services is authorized to act from time to time under Section 16 of the Department of Public Work and Government Services Act (each a ''Client''). Based on known requirements, up to three (3) departments may use the ARS solution, those being, aside from the Canadian Space Agency, the Department of National Defence (DND) and Natural Resources Canada (NrCan)''._**

   Please detail the intended usage, in particular in relation to the provided operational scenarios, which mention other government departments (OGD) in the acronym list but not in the actual scenario descriptions.

   Specific questions:

   a) **Will the OGD be an external operator (i.e. a remote login is suitable for the intended usage)?**

   b) **Must the system be deployed independently (multiple copies of the ARS solution) for each department listed above or will each department have access to the ARS solution as delivered to the CSA?**

   Answer:

   The intended usage by OGDs would be for them to be able to use the ARS solution for their own missions (non-CSA missions). CCMEO, as mentioned in the acronym list, is a component of NRCan.

   a) _Remote operation is not suitable as the software may need customization and integration in a different layer of the antenna planning and control stream._

   b) _The current ARS RFP Requirements only address CSA's immediate operational requirements. By having a full an unrestricted license to use the Contractor-owned ARS Background and Foreground Intellectual Property, this will allow OGDs to customize by themselves the ARS solution to meet their own specific needs, if and when required._

4. **Some of the requirements are listed as both mandatory and optional: ARS057 and ARS392. Could you please clarify your exact requirement (mandatory or optional)?**

   Answer: _ARS057 and ARS392 are both optional. Table I and III of attachment 1 to Part 3 are amended (through this amendment 001) to reflect this change._

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5. The documents in the RFP package refer to two methods by which missions are able to request antenna services from ARS-supported facilities – the Satellite Contact Request and the Satellite Time Request messages. Requirement ARS055 in the ARS Requirements Specification (MMCSA-SP0001 Rev 2.9) states that both messages <u>must</u> be supported as per the applicable ICDs. Many other ARS requirements also refer to both message types. The ARS Concept of Operations (MM-CSA-CO-0001 rev 1.5) notes in section 5.3.2 that support for the Satellite Time Request is <u>optional</u>. However, neither the CSA ARS ICD (MM-CSA-IC003 rev 2.7) nor the RCM ARS ICD (MDA-RCM-IC-53-1948 rev 2/1) contains a message description for the Satellite Time Request. The RFP document does not contain additional instructions on the inclusion, exclusion, or optionality of the Satellite Time Request concept.

   Would Canada please provide some clarification on whether support for the mission-submitted Satellite Time Request message is required? If required, please also advise if it should be costed as an option? And if as an option, please confirm in which option block.

   Answer: *Bidders must disregard the word ''Optional'' in the title of Section 5.3.2 of the document MM-CSA-CO-0001 as the Satellite Time Request is part of the mandatory requirement ARS055. As such, the Satellite Time Request Format is to be proposed by Bidders as part of their ''baseline'' proposal and should match the Satellite Contact Request format as closely as possible.*

   An update to title of section 5.3.2 is included as part of this Amendment 001.

6. Section 4.1.2, Financial Evaluation, in the RFP package itemizes the financial components of the bid which are then itemized in the Annex G, Basis of Payment for the Bid, Excel spreadsheet. We note the following inconsistencies and request clarification accordingly:

   - Licensed Software is identified as Option 7 in Section B.1.2 of the RFP but in the Excel Spreadsheet Licensed Software is included in Section B.1, Subtotal (B) without an option identifier.

   - Maintenance and Support Services for ''Custom Software'' is identified as Option 8a-8e in Section B.1.2 of the RFP but is categorized as Option 7 in the Excel Spreadsheet in Section (B.1.2) (C).

   - Section 4.1.2, Financial Evaluation, of the RFP refers to Price (E) as being the cost for maintaining and supporting the ARS solution over a period of five (5) years but there is no corresponding line item for Price (E) in the Annex ''G'' Bid Cost Breakdown Calculation spreadsheet.

   - Also, in Section 4.1.2, Financial Evaluation, Price ''C'' is specified as ''the cost of <u>all</u> optional goods and services'' Can Canada please confirm that this is intended to include only Options 1- 6 (as Option 7 and 8 are represented by Prices ''B'' and ''E'')?

   Answer: *An updated version of the Annex ''G'' is included as part of this amendment 001. Such revised version addresses the inconsistencies raised above.*

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7. **Section 1.2, Summary, of the RFP describes the delivery date as being on or before November 30, 2016 (subsection b) with a requirement of twelve (12) months warranty (subsection c). The same section gives the initial period of the contract end date as January 31st, 2018. As the warranty would nominally end on November 30th, 2017, could Canada please clarify whether the two month period between November 30th 2017 and January 31st, 2018 is intended to also be covered by warranty services included in the base price (A) or whether Bidders should assume the first of the five (5) one year support options would start on December 1st, 2017?**

   Answer: *Assuming a delivery of the ARS solution on November 30, 2016, the twelve (12) months warranty period would end on November 30, 2017. The first year of the five (5) one year support option would indeed start on December 1st, 2017. The two months period between November 30th 2017 and January 31st, 2018 is intended to account for the contract close-out administrative processes to be completed.*

8. **In the SOW, Section 3.7.3, it states ''After the OSAT, the Contractor must provide training on site to CSA personnel who…'' At the end of that Section, it also states ''Training will begin only after successful installation of the ARS (section 3.6)''. Section 3.6 describes the initial Delivery, Installation and Demonstration of the Software following FAT. These two statements appear to conflict, or maybe training is required after both the demonstration and OSAT. Please clarify.**

   Answer: *Training is only required once both the demonstration and OSAT activities are completed.*

9. **In the SOW, Section 3.1.9.6, the Closeout Review is presented as ''confirming the beginning of the warranty and technical support period for the ARS delivered''. The date for the Closeout Review is given as between October and December 2017. In the RFP, Section 7.2.2.2, Warranty is defined as ''a twelve (12) month period commencing on the day of the ARS delivery from the Contractor to the Canadian Space Agency''. The date for delivery of the ARS is given as ''on or before November 30, 2016''. Please clarify when the warranty is expected to start and when the optional Maintenance and Support periods start.**

   Answer: *Assuming a delivery of the ARS solution on November 30, 2016, the twelve (12) months warranty period would end on November 30, 2017. The first year of the five (5) one year support option would start on December 1st, 2017.*

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10. **In the RFP, ATTACHMENT 1 to PART 3, the requirement ''ARS392'' is included in TABLE I (Mandatory Technical Requirements) as line item #53 as well as in Block 3 of TABLE III – Optional Requirements. Please clarify whether this is a mandatory or optional requirement. In addition, the title requirement ''ARS392'' contains the text ''24-Hours'' in the RFP, ATTACHMENT 1 to PART 3, in both TABLE I and III, but ''48-Hours'' in the Requirements Document. Please confirm that compliance is based on the Requirements Document text specifying 48 hours.**

    Answer: *The requirement ARS392 is an optional requirement while the time requirement for it is 48 hours and not 24 hours. Tables I and III of the Attachment 1 to the Part 3 are modified accordingly through this Amendment 001.*

11. **In the RFP, ATTACHMENT 1 to PART 3, the requirement ''ARS057'', *Autonomous Contact Management*, appears as line item # 7 in Table I (Mandatory Technical Requirements) and then again in Block 1 of Table III (Optional Requirements). Please clarify if this is a mandatory or optional requirement.**

    Answer: *The requirement ARS057is an optional requirement. Tables I and III of the Attachment 1 to the Part 3 are modified accordingly through this Amendment 001.*

12. **In the RFP, ATTACHMENT 1 to PART 3, the requirement ''ARS056'' *Standing Requests* and ''ARS414'' *Standing Requests Fields* appear as line items #6 and 63 respectively in Table I (Mandatory Technical Requirements). Please advise whether these requirements should be relocated to Block 1 of Table III (Optional Requirements) to align with the related optional requirement ''ARS096'' *Contact Time Spawning of Standing Requests''.***

    Answer: *Requirement ''ARS096'' is in fact a mandatory technical requirement. This error is corrected as part of this amendment 001.*

13. **Requirement ''ARS195'' *Accounting Report, as identified in the Multi-Mission Operation Centre (MMOC) Multi-Mission Antenna Reservation System (ARS) Requirements Document – MM-CSA-SP-0001, Section 5.1.16, does not appear in Table I (Mandatory Technical Requirements) of the RFP. Please advise if this requirement should be included in Table I as a mandatory requirement or in table III as an optional requirement.***

    Answer: *Requirement ''ARS195'' is a mandatory requirement. This error is corrected as part of this amendment 001.*

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AMENDMENT 001 - SECTION 2: Corrections made to the RFP package

1. PART 4 – EVALUATION PROCEDURES AND BASIS OF SELECTION

Section 4.1.2 – Financial Evaluation is deleted in its entirety and is replaced with the following:

As described under Part 3, for evaluation purposes only, the price of the Bid, will be calculated by Canada using the ARS Bid Cost breakdown Ms Excel calculation sheet at Annex ''G'' of this Bid solicitation document.

As shown in the ARS Bid Cost breakdown calculation sheet at Annex ''G'', for the purpose of conducting the financial evaluation, Canada will combine:

- The cost of the Work to be performed which is not subject to task authorization (A);

- The cost of renewal of licenses for any licensed software required to run the ARS solution proposed by the Bidder over a ten (10)year period (B);

- The cost of all optional goods and services (assuming Canada would choose to procure those)(C);

- The cost of a simulated Task Order (D);

The sum of the above ''A'', ''B'', ''C'', and ''D'' will be used for the purpose of determining the overall Bid Cost.

Prices are to be presented in Canadian funds, Canadian customs duties and excise taxes included (if applicable) and applicable sales taxes extra and shown separately (if applicable). Prices are FOB destination (Canadian Space Agency, St-Hubert, Quebec).

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2. ANNEX ''B'' – BASIS OF PAYMENT

Table 2 – Optional Goods and Services of Section B.1.2 is deleted in its entirety and replaced by the following one:

Requirement #	Optional Item name	Recommended Decision Point	Firm-Fixed Price	#
Option Block # 1 (all optional items within that block would be exercised at once)				
ARS041	Augmented Mission Configuration	Insert recommendation	Insert price	**1**
ARS057	Autonomous Contact Management			
ARS097	Contact Time Spawning for Autonomous Contact Management			
Option Block # 2 (all optional items within that block would be exercised at once)				
ARS150	Contingency Contact identification process	Insert recommendation	Insert price	**2**
ARS151	Contingency Contact Allocation Process			
ARS152	Contingency Contact Labelling			
Option Block # 3 (all optional items within that block would be exercised at once)				
ARS121	Advanced Schedule optimization algorithm	Insert recommendation	Insert price	**3**
ARS361	Orbit Propagator Computation Time Goal			
ARS371	Schedule Computation Time Goal			
ARS391	Satellite Contact/Time Request 7 days Overall Processing Time Goal			
ARS392	Satellite Contact/Time Request 24h Overall Processing Time Goal			

Individual options				
ARS072	Attitude Model Propagation	Insert recommendation	Insert price	**4**
ARS465	Reservation Web-Based Interface	Insert recommendation	Insert price	**5**
ARS702	Automatic Failure Detection and Failover	Insert recommendation	Insert price	**6**

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Licensed Software (as defined under the modified 4003 (2010-08-16) Supplemental General Conditions)

N/A	Cost of procuring, directly from the Contractor, one (1) annual ''Device License'' for each and every (to be listed) ''Licensed Software'' required to use the ARS solution beyond the first year following the Contract close-out review meeting for up to nine (9) annual renewals in order to cover a period of nine (9) consecutive additional years. Notes: The cost of any Device License for the first year following the Contract closeout review meeting must be included in the Contractor's proposal. Canada reserves the right to procure such licenses from the Contractor individually or globally (only some licenses as opposed to all licenses).	Insert recommendation	Insert price	**7a**
N/A	Cost of procuring, directly from the Contractor, one additional (1) annual ''Device License'' for each and every (to be listed) ''Licensed Software'' required to use the ARS solution beyond the first year following the Contract close-out review meeting for up to ten (10) annual renewals in order to cover a period of ten (10) consecutive years. Note: Canada reserves the right to procure from the Contractor such licenses individually or globally (only some licenses as opposed to all licenses).	Insert recommendation	Insert price	**7b**

Maintenance and Support Services for ''Custom Software''
(as defined under the modified Supplemental General Conditions 4002 (2010-08-16))

Period 1	Up to five (5) individual one (1) year periods for Maintenance and Support Services (in accordance with the conditions of the modified 4004 (2013-04-25) supplemental general conditions for Maintenance and Support Services for Licensed Software).	Insert the price for the first one (1) year period of Maintenance and Support Services.	**8a**
Period 2	Second option period (2nd year):	Price to be escalated using the chosen escalated factor (price for first year x escalation factor).	**8b**
Period 3	Third option period (3rd year):	Price to be escalated using the chosen escalated factor (price for first year x escalation factor).	**8c**
Period 4	Fourth option period (4th year):	Price to be escalated using the chosen escalated factor (price for first year x escalation factor).	**8d**
Period 5	Fifth option period (5th year):	Price to be escalated using the chosen escalated factor (price for first year x escalation factor).	**8e**

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3. ANNEX ''F'' – CONTRACTOR'S DISCLOSURE OF INTELLECTUAL PROPERTY

a) The first sentence of the first paragraph is deleted in its entirety and replaced with the following:

In accordance with Article 7.13 of the Contract (Disclosure of Intellectual Property), and with the Article 28 – Records and Disclosure of Foreground Information of the 2040 (2015-07-03) General Conditions for Research and Development, the Contractor must return to the Contracting Authority this completed Annex ''F'.

b) The introduction of the Definitions section is modified as such:

Definitions *(taken from the 2040 (2014-09-25) General Conditions for Research and Development):*

4. ANNEX ''G'' – BID COST BREAKDOWN CALCULATION SHEET

The original version (July 17, 2015) of the Annex ''G'' is deleted in its entirety and is replaced in full by a new version (August 24, 2015) as a separate Excel file.

As such, the file:
july_17_2015_annex_g_ars_bid_cost_breakdown_calculation_sheet.xlsx

is replaced by file:

24_august_2015_annex_g_ARS.xlsx

5. ATTACHMENT 1 TO PART 3

Tables I and III are deleted in their entirety and are replaced by the following (see the following pages):

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TABLE I – MANDATORY TECHNICAL REQUIREMENTS (MAND01)

	Requirement ID	Requirement Title	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Required? (Yes or No)	Detailed Substantiation (Always include the section and page number of the proposal where the requirement is addressed.)
1	ARS010	Primary objective		No	
2	ARS020	Composition of the System Configuration		No	
3	ARS030	Composition of the Facility Configuration		No	
4	ARS040	Composition of the Mission Configuration		No	
5	ARS055	Contact and Time Requests		**Yes**	
6	ARS056	Standing Requests		**Yes**	
7	N/A	N/A		N/A	
8	ARS060	Update of Satellite Orbit TLE		No	
9	ARS061	Default Satellite Orbit TLE		No	
10	ARS062	Satellite Orbit TLE Manager		No	
11	ARS070	Orbit Propagator and Satellite Contacts prediction		**Yes**	
12	ARS071	Satellite Contacts Prediction Constraints		No	
13	ARS075	Automation of the Orbit Propagation and Satellite Contacts Prediction		**Yes**	
14	ARS078	Generation of Contact Opportunity Schedule		**Yes**	
15	ARS080	Validation of a Satellite Contact/Time Request		**Yes**	
16	ARS090	Request Validity Report		No	
17	ARS095	Pre-Screening of Schedule Inputs		No	
17A	ARS096	Contact Time Spawning of Standing Requests		No	
18	ARS098	Consolidation of Satellite Contact/Time Requests		**Yes**	
19	ARS099	Computation of the Schedule		**Yes**	
20	ARS100	Automation of the Schedule Computation		**Yes**	
21	ARS110	Schedule De-Conflicting Rules		**Yes**	
22	ARS120	Schedule Optimization Factors and Constraints		**Yes**	
23	ARS130	Rescheduling of overruled Committed Satellite Contacts		**Yes**	
24	ARS131	Contact Request Reschedulability Field		No	

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	Requirement ID	Requirement Title	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Required? (Yes or No)	Detailed Substantiation (Always include the section and page number of the proposal where the requirement is addressed.)
25	ARS140	Tracking of Schedule Changes		**Yes**	
26	ARS141	Contact Update Field		No	
27	ARS160	Generation of Approved Schedule Derived Products		No	
28	ARS170	Generation of Committed Schedule Derived Products		No	
29	ARS180	Committed Schedule retransmission		No	
30	ARS190	Optimizer Performance Report		No	
31	ARS191	Facility Performance Report		No	
32	ARS192	Mission Performance Report		No	
32A	ARS195	Accounting Report		No	
33	ARS200	Notification of Reception		**Yes**	
34	ARS210	Manual Entry of Satellite Orbital TLE		**Yes**	
35	ARS215	Manual Generation of the Compliant Satellite Contact List		No	
36	ARS220	Admittance of Satellite Contact/Time Request		**Yes**	
37	ARS230	Manual Reservation of Satellite Contacts		**Yes**	
38	ARS231	Manual Reservation Priority		No	
39	ARS240	Manual Override of Automatic Schedule Computation		**Yes**	
40	ARS250	Approval of Preliminary and Accepted Schedules		**Yes**	
41	ARS251	Backlog of Previous Committed Schedules		**Yes**	
42	ARS252	Restoring of Backlog Schedule		**Yes**	
43	ARS260	Locking of Committed Contacts		**Yes**	
44	ARS261	Notification of Conflict with Locked Contacts		**Yes**	
45	ARS270	Automatic override of Operator's approval processes		**Yes**	
46	ARS350	Scalability		**Yes**	
47	ARS360	Orbit Propagator Computation Time		**Yes**	
48	ARS365	Contact Opportunity Schedule computation time		**Yes**	

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	Requirement ID	Requirement Title	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Required? (Yes or No)	Detailed Substantiation (Always include the section and page number of the proposal where the requirement is addressed.)
49	ARS370	Schedule Computation Time		**Yes**	
50	ARS375	Urgent Schedule Computation Timeout		**Yes**	
51	ARS380	Antenna Access Request timeout		**Yes**	
52	ARS390	Satellite Contact/Time Request Overall Processing Time		**Yes**	
53	N/A	N/A		N/A	
54	ARS400	Reception of Satellite Orbit TLE		**Yes**	
55	ARS405	Reception of Contact Opportunity Request		No	
56	ARS406	Transmission of Contact Opportunity Report		**Yes**	
57	ARS407	Configurable Contact Opportunity Report		**Yes**	
58	ARS408	Contact Opportunity Report fields		No	
59	ARS410	Reception of Satellite Contact/Time Request		**Yes**	
60	ARS411	Configurable Satellite Contact/Time Request		**Yes**	
61	ARS412	Satellite Contact Request Fields		No	
62	ARS413	Satellite Time Request Fields		No	
63	ARS414	Standing Request Fields		No	
64	ARS420	Acknowledgment of Satellite Contact/Time Request		**Yes**	
65	ARS421	Configurable Request Validity Report		**Yes**	
66	ARS422	Request Validity Report Fields		No	
67	ARS430	Transmission of Committed Mission Schedule		No	
68	ARS431	Configurable Mission Schedule		**Yes**	
69	ARS432	Mission Schedule Fields		No	
70	ARS440	Reception of Mission Schedule Acknowledgment		**Yes**	
71	ARS450	Communication Scheme with the Mission		No	

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	Requirement ID	Requirement Title	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Required? (Yes or No)	Detailed Substantiation (Always include the section and page number of the proposal where the requirement is addressed.)
72	ARS462	Mission Message Inspection		No	
73	ARS500	Reception of Antenna Unavailability Report		No	
74	ARS501	Configurable Antenna Unavailability Report		**Yes**	
75	ARS510	Transmission of Antenna Access Request		**Yes**	
76	ARS511	Configurable Antenna Access Request		**Yes**	
77	ARS512	Antenna Access Request Fields		No	
78	ARS520	Reception of Antenna Access Request Acknowledgment		**Yes**	
79	ARS521	Configurable Antenna Access Request Acknowledgment		**Yes**	
80	ARS530	Reception of Antenna Access Confirmation		**Yes**	
81	ARS531	Configurable Antenna Access Confirmation		**Yes**	
82	ARS532	Antenna Access Confirmation Fields		No	
83	ARS540	Transmission of Committed Facility Schedule		**Yes**	
84	ARS541	Configurable Committed Facility Schedule		**Yes**	
85	ARS542	Committed Facility Schedule Fields		No	
86	ARS545	Reception of Committed Facility Schedule Acknowledgment		No	
87	ARS550	Communication Format with the Facilities		No	
88	ARS551	Format Conversion of Facility Messages		**Yes**	
89	ARS552	Facility Message Inspection		No	
90	ARS580	Interface with Live Schedule Board		No	
91	ARS600	System Security		**Yes**	
92	ARS610	System Accounts and Privileges		**Yes**	
93	ARS700	Operational Redundancy		**Yes**	
94	ARS701	Backup handover latency		**Yes**	

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	Requirement ID	Requirement Title	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Required? (Yes or No)	Detailed Substantiation (Always include the section and page number of the proposal where the requirement is addressed.)
95	ARS705	Data Persistency and Accessibility in Case of System Failure		Yes	
96	ARS710	Deployability		Yes	
97	ARS720	Portability		Yes	
98	ARS730	Availability		Yes	
99	ARS740	Lifetime		Yes	
100	ARS750	Accessibility of Data		Yes	
101	ARS760	Backlog of Data		Yes	
102	ARS761	Safeguarding of Data		Yes	
103	ARS765	Event Log File		Yes	
104	ARS766	Event Log File Fields		No	
105	ARS770	Display of Schedule for the Operator		Yes	
106	ARS771	Flexibility of the Schedule View		Yes	
107	ARS772	Printability of the Schedule View		No	
108	ARS780	Time Reference		No	
109	ARS781	Time Reference Format		No	
110	ARS790	Active Memory Margin		Yes	

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TABLE III– OPTIONAL REQUIREMENTS (MAND01-CONTINUED)

	Requirement ID	Requirement Title	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Required? (Yes or No)	Section and page number of the proposal where the requirement is addressed
1	ARS041	Augmented Mission Configuration		**Yes**	
	ARS057	Autonomous Contact Management		**Yes**	
	N/A	N/A		N/A	
	ARS097	Contact Time Spawning for Autonomous Contact Management		**Yes**	
2	ARS150	Contingency Contact Identification process		**Yes**	
	ARS151	Contingency Contact Allocation process		**Yes**	
	ARS152	Contingency Contact Labelling		**Yes**	
3	ARS121	Advanced Schedule optimization algorithm		**Yes**	
	ARS361	Orbit Propagator Computation Time Goal		**Yes**	
	ARS371	Schedule Computation Time Goal		**Yes**	
	ARS391	Satellite Contact/Time Request 7 days Overall Processing Time Goal		**Yes**	
	ARS392	Satellite Contact/Time Request 48h Overall Processing Time Goal		**Yes**	
4	ARS072	Attitude Model Propagation		**Yes**	
5	ARS465	Reservation Web-Based Interface		**Yes**	
6	ARS702	Automatic Failure Detection and Failover		**Yes**	

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6. APPLICABLE DOCUMENT AD-1 – MULTI-MISSION ANTENNA RESERVATION SYSTEM (ARS) CONCEPT OF OPERATIONS (MM-CSA-CO-0001):

a) In the Table of Content, at page vi, the following line item is deleted:

6.3.2 *Satellite Time Requests (Optional)….25*

and is replaced with the following:

5.3.2 *Satellite Time Requests….25*

b) At page 25, the title of article 5.3.2 is deleted in its entirety and replaced with the following:

5.3.2 Satellite Time Requests

(the word ''Optional'' is deleted).

7. APPLICABLE DOCUMENT AD-2 – MULTI-MISSION ANTENNA RESERVATION SYSTEM (ARS) REQUIREMENTS DOCUMENT (MM-CSA-SP-0001):

Paragraph [ARS0096] of Article 5.1.7 of Applicable document AD-2 is deleted in its entirety and replaced by the following:

[ASR096] Contact Time Spawning of Standing Requests: The ARS shall spawn individual Satellite Contact Times from accepted Standing Requests over the Schedule Time Window.

END OF AMENDMENT 001