

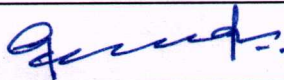
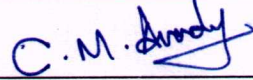
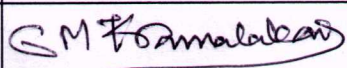

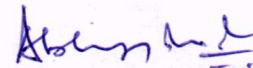

**CSIR-NATIONAL AEROSPACE LABORATORIES
BENGALURU - 560 017**

ANNEXURE - I

TENDER NO.: NAL/PUR/ALD/580/19-Z
DATE & TIME : 28-Jul-2020 @ 10:30 AM
VENUE: THROUGH WEBEX

Pre-Bid Conference for Fabrication, wiring, Integration, Testing and Installation of Avionic test rig instrumentation Racks.

ATTENDANCE SHEET - T&PC MEMBERS

Sr. No.	Name		Signature
1	Dr. M. Manjuprasad, Chief Scientist, STTD	Chairman	
2	Dr. C.M. Ananda, Chief Scientist/Head, ALD	Member	
3	Dr. Giresh Kumar Singh, Sr.Principal Scientist, FMCD	Member	—
4	Mr. ,G.M. Kamalakannan, Sr.Principal Scientist, CSMST	Member	
5	Mr. Dilip Kumar Sahu, Sr.Technical Officer-2, CAD	Member	
6	Mr. A. Muthukumar, Sr.Scientist, CAD	Member	—
7	Dr. Abhay Pashilkar, Chief Scientist, FMCD	Member	
8	Mr. Nagaraja Patagar, Technical Officer, ALD	Member- Convenor -TSC	—
9	FAO or his representative	Member	—
10	AO or his representative	Member	
11	CoSP/SPO or his representative	Member- Convenor T&PC	—

PROCEEDINGS OF THE PRE-BID CONFERENCE HELD ON 28TH JULY 2020 AT ICASAT CONFERENCE HALL, CSIR-NAL, TOWARDS FABRICATION, WIRING INTEGRATION, TESTING AND INSTALLATION OF AVIONIC TEST RIG INSTRUMENTATION RACKS.

The Pre-bid Conference was held and the following T&PC members attended the meeting: -

Sl. No.	Name & Designation	Role
1	Dr. M. Manjuprasad	Chief Scientist, STTD
2	Dr.C. M. Ananda	Chief Scientist/Head, ALD
3	Dr.Giresh Kumar Singh	Sr.Principal Scientist, FMCD
4	Mr. Kamalakannan,G.M.	Sr.Principal Scientist- CSMST
5	Mr. Dilip Kumar Sahu,	Sr.Technical Officer-2, CAD
6	Mr. A. Muthukumar	Sr.Scientist, CAD
7	Dr.AbhayPashilkar	Chief Scientist, FMCD
8	Mr. NagarajaPatagar, G. M	Technical Officer-ALD
9	AO or his representative	Member
10	FAO or his representative	Member
11	CoSP/SPO or his representative	Member - Convener (T&PC)

The list of Prospective bidders who attended the Pre-bid Conference is as per **Annexure-I**.


At the outset, the Chairman welcomed all the Members and the representatives of the Bidders and briefed in general the scope of the Project and thereafter requested **SPO** to brief the Bidders on the salient features of the commercial terms. The Indenting Officer to read out the clarification sought by the bidders and the replied thereto as detailed in **Annexure-II(Part A: Technical Clarification and Part B: Commercial Clarification, if any)**.

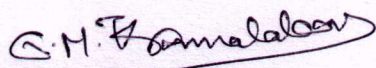
The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of CSIR-NAL and all prospective bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before formulating and submitting their bids as stipulated in bidding Documents.

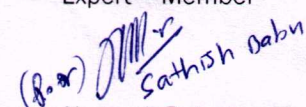
The meeting ended with a vote of thanks to the Chair.

Encl: as above.

M. J. Nandeesh
Member - Convener (T&PC)


Admin - Member

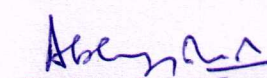

Kamalakannan, G.M.
Expert - Member


Nagaraja Patagar
Member - Convener (TSC)

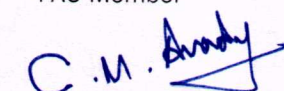
CoSP-Member


Dr. Giresh Kumar Singh
Expert - Member


A.Muthukumar
Member


Dr. Abhay Pashilkar
Pro- Director- Member

FAO-Member


Dr. C. M. Ananda
Expert - Member


Dilip Kumar Sahu
Member


Dr. M. Manjuprasad
Chairman

Technical clarification of pre bid meeting to Avionics integration test rig

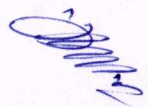
1) Cyient Technical clarifications

Sl #	Query Description	Cyient Understanding	Reference Page No./Section Number in Tender Notice_1	Internal/external	Group	Answers	Status
1	Did NAL provide the Test Jig Avionics Simulation facility? Is it scope of NAL. Please Confirm?	<p>Based 4.2.3.1 Scope: AITR Scope Looming for the interconnection between LRU, Simulator system, cockpit interface unit and power distribution unit to be provided.</p> <p>Based on 4.2.5.1 Scope of CSIR NAL: Avionics Simulation Facility Scope Not Mentioned?</p> <p>Based on 4.2.5.2 Scope of Bidder: Avionics Simulation Facility Scope Not Mentioned?</p>	4.2.3.1,4.2.5.1 and 4.2.5.2	External	Hardware	Avionics Simulation Facility (RTTS) shall be provided by NAL. However looming for the interconnection between LRU, Simulator system, cockpit interface unit and power distribution unit to be provided by Bidder.	close
2	AITR required Simulation Facility for the Aircraft Communication. Is it scope of NAL.Please Confirm?	<p>In Section-4.3.2: The Test Rig shall consist of aircraft LRUs and simulated data to recreate the aircraft operational environment.</p> <p>A. avionics system simulation facility is bidder Scope of NAL Scope?</p>	4.3.2 and 4.2.6.2.1	External	Hardware	Avionics Simulation Facility (RTTS) shall be provided by NAL	close

3	AITR required Integrate LRU and cockpit controls. Please Confirm the Bidder Scope?	In Section-4.3.2: The Test Rig shall consist of aircraft LRUs and simulated data to recreate the aircraft operational environment. b)Bidder Scope on provision to integrate LRU and cockpit controls.	4.3.2 and 4.2.6.2.1	External	Hardware	Cockpit controls and LRUs and OEM supplied LRU installation kits shall be provided by NAL. However, bidders scope is to make the routing arrangements for the installation kit and installation of LRUs.	close
4	AITR required Utilities systems such as measuring Instruments and cooling system. Is it scope of NAL.Please Confirm?	In Section-4.3.2: The Test Rig shall consist of aircraft LRUs and simulated data to recreate the aircraft operational environment. c) It shall have facility to acquire, monitor and log the data during integrated testing. Do the Acquire, Monitor and Log report facility provided by NAL?	4.3.2 and 4.2.6.2.1	External	Hardware	Measuring systems, Acquire, Monitor and log report facility are scope of NAL. Cooling fans for the racks shall be provided by Bidder for as part of cooling systems.	close
5	Do the AITR Test Execution Software provided by NAL during the ATP?	NA	NA	External	Hardware	NAL shall not provide any test execution software for ATP as ATP shall	close

						contain the passive test of loom and interconnectivity.	
6	As per Scope of CSIR-NAL, cables for LOOMS fabrication will be provided? Please confirm is the Cable fabrication of Internal and External looms will be provided by NAL? Please Confirm?	Cost of Cables/Wire are not considered in the BOM based on the Confirmation. Do that Cable includes for Fabrication of Interconnection between LRU&BIBO and Simulation System & BIBO?	4.2.5.1 Point No. B	External	Hardware	Cables for the fabrication of looms between LRU&BIBO and Simulation System & BIBO shall be provided by NAL.	close
7	As per Scope of CSIR-NAL, Provide BIBO layout design. Please Confirm the Layout Design format?	Confirm on Layout Design Format type? Ex. Engineering Drawing format	4.2.5.1 Point No. F	External	Hardware	typical representation of BIBO layout design provided by NAL shall be in AutoCAD 2D drawing format. However for the implementation , bidder has to consider the actual dimensions of the components used and make corrections if required.	close

8	Please confirm? Minimum 20% vacant pins shall be provided in all used connectors. Is it considered in NAL provided connectors part list? Applicable only to Internal?	Document Contains the List of parts number in Table No.4. Do that list includes vacant pins of 20%? Needs to consider the excess connectors?	4.2.6.1 Point No. C	External	Hardware	20% extra pins are considered in connectors part numbers provided by NAL. If 20% not possible means then excess connectors may be considered.	Open
9	References for Architecture and Table are missing in following Sections: 4.2.3,4.2.3.2,4.2.4.3,4.2.5.1,4.2.5.2,4.2.6.1,4.2.6.1.1,4.2.6.2.3	Sowing as "Error! Reference source not found"	4.2.3,4.2.3.2,4.2.4.3,4.2.5.1,4.2.5.2,4.2.6.1,4.2.6.1.1,4.2.6.2.3	External	Hardware	reference shall be updated and provided	close
10	List of Deliverables (BoQ): under Section 4.2.12 and BOQ_56025-Item Rate BOQ . There are Quantity mismatch for Line Item 7 to Line Item 47	Refer: BOQ from Tender Document Section: 4.2.12 : List of Deliverables (BoQ): Refer: BOQ_56087 Item Rate BOQ excel Sheet	4.2.12 & BOQ_56087 Sheet	External	Hardware	BOQ_56025 and BOQ-56087 are not available in tender document. Bidder may please clarify.	Open
11	Will NAL provide Assembly instructions, sizes and hardware like trays for instruments other than 35 LRUS.	4.2.6.1.1 Patch Panel cum BIBO F. Test points and Shorting plugs shall have low contact resistance and have provision to inject/monitor the electrical signals through patch panel using testing and measuring instruments. 4.2.6.2.1 Racks and Consoles a. Racks and modules shall	Section 4.2.6.1.1, 4.2.6.2.1, Table 5: BIBO Panel Details	External	Hardware	Assembly instruction and mechanical dimension of LRU will be provided by NAL	close



[Handwritten signature]

		house avionics LRUs, LRU protocol simulator system, monitors, BIBO, testing and measuring instruments, etc.					
1 2	LRUs and BIBO panels are mounted in same respective MODULE. NAL is asking for BIBO top, front rear panels to detach in that module. Does NAL supplied modules have similar configuration?	4.2.6.2.1 Racks and Consoles a. Racks and modules shall house avionics LRUs, LRU protocol simulator system, monitors, BIBO, testing and measuring instruments, etc. c. BIBO panels top, front and rear panels shall be detachable.	Section 4.2.6.2.1	External	Hardware	yes	close
1 3	As per Table 5: BIBO Panel Details: CB are required with different ratings. Does NAL provide the CB's or Bidder Scope	CB are not listed in the bidder delivery list. Please provide the clarification. If it is bidder scope please provide the specifications of CB's	Section 4.2.6.3 Table No 5	External	Hardware	CBs are not in scope of bidder	close

SI NO	Description	Document Ref. number	Query Status	Query No	NAL Response	Remarks
1	Fabrication of Break-In-Break-Out (BIBO) Panel for each LRU. – does all the BIBO panel are present in one location or are they present separately with respective LRUs?	NAL-AITG-8Jul20 Section-4.2.3.1, point (b)	Open	AITR-NAL_QR001	Dedicated BIBO panels are to be provided for each LRUs. Respective LRUs shall be installed inside the respective BIBO module.	
2	What is it mean by S, O and E mentioned in BIBO Patch Panel block in Figure 1 : Overview of AITR in Budgetary quote spec document.	NAL-AITG-8Jul20 Section 4.2.3.2, Figure - 1	Open	AITR-NAL_QR002	E, O and S are the terminals for each signal of LRU. E stands for Equipment, O stands for Out and S stands for Simulation. Signal from either E or S to be given to O manually using shorting plugs.	
3	Connector details provided in table:4 Deliverables and BOM are they LRU mating side or BIBO panel mating side ? If either one side end mating then another end side connector details are required.	NAL-AITG-8Jul20 Section - 4.2.6.3, Table 4. SI.14 to 40.	Open	AITR-NAL_QR003	Connector details provided in table:4 Deliverables and BOM represents BIBO panel mating side. NAL shall provide the LRU mating side connectors.	
4	LRU details w.r.t racks given in table:5 BIBO Panel details , which are 2 racks in Rossell scope (as per table:4 Rossell's scope) out of those 8 Racks (Rack-1 to Rack-8)	NAL-AITG-8Jul20 pdf document-	Open	AITR-NAL_QR004	2 racks shall be provided by bidder and 6 racks shall be provide by NAL	

		Table 5				
5	Rack numbers with details are not matching in Figure:3 Layout of ATR and Table:5 BIBO Panel details. Which one need to be consider ?	NAL-AITG-8Jul20 pdf document	Open	AITR-NAL_QR005	Table 5 shall be considered. Total racks are 8 (6 from NAL + 2 from bidder).	
6	Total numbers of LRUs 35 as per table:5 BIBO Panel details, so shall Rossell consider 35 BIBO panels fabrication ?	NAL-AITG-8Jul20 pdf document	Open	AITR-NAL_QR006	NO. BIBO panels required are specified in Table 4 and 5.	
7	In Table 5: BIBO Panel Detail LRU numbering for 18 items is misssing. For example Engine1, Engine2, Heat Current Mon,Fuel System,Fire & Smoke Alarm,Access Doors,Wind Shield Heat,Wheel Brake,Oxygen System,Lighting System NA,Anti-Icing,Hydraulics,Landing Gear ,Cabin Pressure,Event Marke,Flap Control System. Are these also LRU?	NAL-AITG-8Jul20 pdf document-Table 5	Open	AITR-NAL_QR007	These are BIBO terminals from different utility systems. These systems shall not considered as LRU.	
8	What are junction boxes in Rack 4?	NAL-AITG-8Jul20 pdf document-Table 5	Open	AITR-NAL_QR008	Junction Boxes comprises of set of Junction Modules for tapping signals from one to many	
9	Measuring instruments nowhere listed out either in NAL scope or Rossell scope.		Open	AITR-NAL_QR009	measuring instruments are not in scope of Bidder	
10	Part number for few items (sno-46 to 52) are not mentioned. Please provide part numbers for each line items.	NAL-AITG-8Jul20 pdf document-Table 4		AITR-NAL_QR010	Sl. No. 46-52 are industrial grade items which are to be identified supplied by the vendor based on NAL r1equirememnt.	



11	Are patch terminals are Banana sockets ? Is requirement of soldering or crimping based ?	NAL-AITG-8Jul20 Section - 4.2.6.3, Table 4. SI.47	Open	AITR-NAL_QR011	Yes, patch terminals are Banana Sockets. Crimp Type.	
12	Details of signals name, no. of signals and wire length from Test setup racks assembly (ground floor) to Cockpit (mezzanine floor)	NAL-AITG-8Jul20 Section - 4.2.3.2, Figure 2.	Open	AITR-NAL_QR012	Signal details shall be provided after the selection BIBO. Wire length form Test setup racks assembly (ground floor) to Cockpit (mezzanine floor) will be in meters	
13	any braid special requirement for all looms?		Open	AITR-NAL_QR013	For neat and clean cable loom not metal braids shall be used (plastic)	
14	any sticker/label special requiremnt for loom and wires identification ?		Open	AITR-NAL_QR014	all wires, cable loom and connectors shall have identification mark. Cable Sleeves shall be used.	
15	Please provide the mechanical drawing for the parts mentioned in the sec 4.2.6.3 for serial number 1,2,3,6,7,8,9 and 13	NAL-AITG-8Jul20 Section - 4.2.6.3	Open	AITR-NAL_QR015	Mechanical drawing will not be provided by NAL. However, dimensional requirements are provided in Section 4.2.6.3 Note: b	

16	Parts mentioned in sec. 4.2.6.3 few shall be supplied by NAL and few shall be Bidder, please confirm will there not be form, fit and difference in colour issues during integration. As the part might be through different sources.	NAL-AITG-8Jul20 Section - 4.2.6.3	Open	AITR-NAL_QR016	Look and feel shall not be odd such a vendor shall choose the component. Such situation vendor shall take confirmation with NAL	
17	Bidders that are currently registered with the purchaser or registered as MSEs will continue to remain registered during the tender validity period also and are exempted from payment of EMD. In case the tenderer falls in these categories, the bidder should furnish a certified copy of its valid registration details. Query: Rossell is a supplier to NAL and has supplied airworthy products. But does not have NAL registration details. Can provide NAL PO references to substantiate our claim that Rossell is indeed NALs vendor. Can we avail EMD exemption as NAL registered supplier? Also we are an MSME company, under "medium" category.	1.16.8, Page 12	Open	AITR-NAL_QR017	SPO need to clarify	
18	Proposal submission is scheduled for 10-Aug-20. Request: Requesting extension for proposal submission by 3 weeks as there will be a delay in getting quotes from suppliers and also decide our actions based on the prebid clarification received from NAL.	Pt. 6, Page 3	Open	AITR-NAL_QR018	Extension of 3 weeks may not be possible. But decent time will be provided.	



**CSIR-NATIONAL AEROSPACE LABORATORIES
BENGALURU**

TECHNICAL QUERIES & CLARIFICATION

Tender No. :

Item Description :

Sr. No	Query / Clarification Sought	Clarification/Amendment
1	3.2 Scope of Vendor Vendor shall fabricate the BIBO panels for each LRU as per ICD (refer Table 2 for BIBO panel details) – does all the BIBO panel are present in one location or are they present separately with respective LRUs?	Dedicated BIBO panels are to be provided for each LRUs. Respective LRUs shall be installed inside the respective BIBO module.
2	block diagram- fig 1 What is it mean by S, O and E mentioned in BIBO Patch Panel block in Figure 1 : Overview of ATR in Budgetary quote spec document.	E, O and S are the terminals for each signal of LRU. E stands for Equipment, O stands for Out and S stands for Simulation. Signal from either E or S to be given to O manually using shorting plugs.
3	Section 4.2.5 Connector details provided in table:4 Deliverables and BOM are they LRU mating side or BIBO panel mating side ? If either one side end mating then another end side connector details are required.	Connector details provided in table:4 Deliverables and BOM represents BIBO panel mating side. NAL shall provide the LRU mating side connectors.
4	Table 5 LRU details w.r.t racks given in table:5 BIBO Panel details , which are 2 racks in Rosselscope (as per table:4 Rossell'sscope) out of those 8 Racks (Rack-1 to Rack-8)	2 racks shall be provided by bidder and 6 racks shall be provide by NAL
5	Rack numbers with details are not matching in Figure:3 Layout of ATR and Table:5 BIBO Panel details. Which one need to be consider ?	Table 5 shall be considered. Total racks are 8 (6 from NAL + 2 from bidder).
6	Total numbers of LRUs 35 as per table:5 BIBO Panel details, so shall Rossellconsider 35 BIBO panels fabrication ?	NO. BIBO panels required are specified in Table 4 and 5.
7	Table 5 In Table 5: BIBO Panel Detail LRU numbering for 18 items is misssing. For example Engine1, Engine2, Heat Current Mon,FuelSystem,Fire& Smoke Alarm,AccessDoors,Wind Shield Heat,WheelBrake,OxygenSystem,Lighting System NA,Anti-Icing,Hydraulics,Landing Gear ,Cabin	These are BIBO terminals from different utility systems. These systems shall not considered as LRU.

	Pressure,EventMarke,Flap Control System. Are these also LRU?	
8	Table 5 What are junction boxes in Rack 4?	Junction Boxes comprises of set of Junction Modules for tapping signals from one to many
9	Measuring instruments nowhere listed out either in NAL scope or Rosselscope.	measuring instruments are not in scope of Bidder
10	Table 4 Part number for few items (sno-46 to 52) are not mentioned. Please provide part numbers for each line items.	Sl. No. 46-52 are industrial grade items which are to be identified supplied by the vendor based on NAL requirement.
11	Are patch terminals are Banana sockets ? Is requirement of soldering or crimping based ?	Yes, patch terminals are Banana Sockets. Crimp Type.
12	Details of signals name, no. of signals and wire length from Test setup racks assembly (ground floor) to Cockpit (mezzanine floor)	Signal details shall be provided after the selection BIBO. Wire length form Test setup racks assembly (ground floor) to Cockpit (mezzanine floor) will be in meters
13	any braid special requirement for all looms?	
14	any sticker/label special requiremrnt for loom and wires identification ?	all wires, cable loom and connectors shall have identification mark. Cable Sleeves shall be used.
15	Please provide the mechanical drawing for the parts mentioned in the sec 4.2.6.3 for serial number 1,2,3,6,7,8,9 and 13	Mechanical drawing will not be provided by NAL. However, dimentionals requirements are provided in Section 4.2.6.3 Note: b
16	Parts mentioned in sec. 4.2.6.3 few shall be supplied by NAL and few shall be Bidder, please confirm will there not be form, fit and difference in colour issues during integration. As the part might be through different sources.	Before choosing such items, bidders shall be discuss with NAL for confirmation . without confirmation it will not be allowed.
17	Bidders that are currently registered with the purchaser or registered as MSEs will continue to remain registered during the tender validity period also and are exempted from payment of EMD. In case the tenderer falls in these categories, the bidder should furnish a certified copy of its valid registration details. Query: Rossell is a supplier to NAL and has supplied airworthy products. But does not have NAL registration details. Can provide NAL PO references to substantiate our claim that Rossell is indeed NALs vendor. Can we avail EMD exemption as NAL registered supplier? Also we are an MSME company, under "medium" category.	SPO may please clarify
18	Proposal submission is scheduled for 10-Aug-20. Request: Requesting extension for proposal submission by 3 weeks as there will be a delay in getting quotes from suppliers and also decide our actions based on the prebid clarification received from NAL.	3 weeks may not be possible. But decent time will be provided

19	4.2.3.1,4.2.5.1 and 4.2.5.2 Did NAL provide the Test Jig Avionics Simulation facility? Is it scope of NAL. Please Confirm?	Avionics Simulation Facility (RTTS) shall be provided by NAL. However looming for the interconnection between LRU, Simulator system, cockpit interface unit and power distribution unit to be provided by Bidder.
20	4.3.2 and 4.2.6.2.1 Aitr required Simulation Facility for the Aircraft Communication. Is it scope of NAL.Please Confirm?	Avionics Simulation Facility (RTTS) shall be provided by NAL
21	4.3.2 and 4.2.6.2.1 Aitr required Integrate LRU and cockpit controls. Please Confirm the Bidder Scope?	Cockpit controls and LRUs and OEM supplied LRU installtion kits shall be provided by NAL. However, bidders scope is to make themouting arrangements for the installation kit and installtion of LRUs.
22	4.3.2 and 4.2.6.2.1 Aitr required Utilities systems such as measuring Instruments and cooling system. Is it scope of NAL.Please Confirm?	Measuring systems, Acquire, Monitor and log report facility are scope of NAL. Cooling fans for the racks shall be provided by Bidder for as pert of colloing systems.
23	Do the Aitr Test Execution Software provided by NAL during the ATP?	NAL shall not provide any test excecution software for ATP as ATP shal contain the passive test of loom and interconnectivity.
24	4.2.5.1 Point No. B As per Scope of CSIR-NAL, cables for LOOMS fabrication will be provided? Please confirm is the Cable fabrication of Internal and External looms will be provided by NAL? Please Confirm?	Cables for the fabrication of looms between LRU&BIBO and Simulation System & BIBO shall be provided by NAL.
25	4.2.5.1 Point No. F As per Scope of CSIR-NAL, Provide BIBO layout design. Please Confirm the Layout Design format?	typical representation of BIBO layout design provided by NAL shall be in AutoCAD 2D drawing format. However for the implementation, bidder has to consider the actual dimensions of the components used and make corrections if required.
26	4.2.6.1 Point No. C Please confirm? Minimum 20% vacant pins shall be provided in all used connectors. Is it considered in NAL provided connectors part list? Applicable only to Internal?	20% extra pins are considered in connectors part numbers provided by NAL.
27	4.2.3,4.2.3.2,4.2.4.3,4.2.5.1,4.2.5.2,4.2.6.1,4.2.6.1.1,4.2.6.2.3 References for Architecture and Table are missing in following	refrence shall be updated and provided

	Sections: 4.2.3,4.2.3.2,4.2.4.3,4.2.5.1,4.2.5.2,4.2.6.1,4.2.6.1.1,4.2.6.2.3	
28	4.2.12 & BOQ_56087 Sheet List of Deliverables (BoQ): under Section 4.2.12 and BOQ_56025-Item Rate BOQ . There are Quantity mismatch for Line Item 7 to Line Item 47	BOQ_56025 and BOQ-56087 are not available in tender document. Bidder may please clarify.
29	Section 4.2.6.1.1, 4.2.6.2.1, Table 5: BIBO Panel Details Will NAL provide Assembly instructions, sizes and hardware like trays for instruments other than 35 LRUS.	NAL will provide all installation instruction and dimensional data once the bidders is selected.
30	Section 4.2.6.2.1 LRUs and BIBO panels are mounted in same respective MODULE. NAL is asking for BIBO top, front rear panels to detach in that module. Does NAL supplied modules have similar configuration?	yes
31	Section 4.2.6.3 Table No 5 As per Table 5: BIBO Panel Details: CB are required with different ratings. Does NAL provide the CB's or Bidder Scope	CBs are not in scope of bidder
32	All wires/cables, which are going to be used for looming, will be provided by NAL. But ferules, Braids, HSTs and other accessories are bidder's scope of work. Please confirm	Only wires shall be provided by NAL. Others accessories required for the looming is scope of bidder.
33	Are speakers voice controlled?	
34	Please provide reference Manufacturer Part No of pushbuttons, Lamps, Switches, Shorting plugs, patch terminals and potentiometers or provide their detailed specifications. a. Push button switches are illuminated type. b. What is the required dimension of the push buttons? c. Are Lamps AC type or DC type? And what are specifications? d. Are Shorting Plugs/ Patch terminals 2mm or 4mm? e. Potentiometers are with locking cap or without locking cap/knob? f. Specify the color of Lamps, shorting plugs, and patch terminals. If different colors need to be used, then specify colors and numbers in each color ?	a. Yes ,part no will be provided after selection of bid b. will be provided after selection of bid c. +28VDC lamps d. 2mm e. With locking knob f. will be provided after selection of bid
35	Please provide existing Rack Manufacturer Part No.	NETRACK
36	Each LRU's circuit breaker's position not shown in RACK diagram, are they part of BIBO box? Each LRU's circuit breaker's position needs to be specified.	LRU Circuit breakers are scope of NAL.
37	Can NAL provide OEM guidelines/mounting details to mount LRU on test rig with recommended kits during bidding phase ?	NAL will provide mounting guidelines and data after selection of bid
38	Please provide cable length between ground floor and mezzanine floor.	Approx 20 ft

RANGSONS DEFENCE SOLUTIONS PVT.LTD.

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Prebid Meeting Queries for NAL Tender No : TENDER NO: NAL/PUR/ALD/580/19-Z

1. All wires/cables, which are going to be used for looming, will be provided by NAL. But ferules, Braids, HSTs and other accessories are bidder's scope of work. Please confirm

NAL : Wires for looming will be provided by NAL , braids and HST will be a part of vendor.

2. Are speakers voice controlled?

NAL : one of the LRU will provide signal to speakers for any voices and warnings . that LRU will be provided by NAL , it will be a normal speakers t produce sound

3. Please provide reference Manufacturer Part No of pushbuttons, Lamps, Switches, Shorting plugs, patch terminals and potentiometers or provide their detailed specifications.

a. Push button switches are illuminated type.

NAL : will be provided after selection of bid

b. What is the required dimension of the push buttons?

NAL : will be provided after selection of bid

c. Are Lamps AC type or DC type? And what are specifications?

NAL : DC Lams

d. Are Shorting Plugs/ Patch terminals 2mm or 4mm?

NAL: 2 mm

e. Potentiometers are with locking cap or without locking cap/knob?

NAL: Locking cap with knob

f. Specify the color of Lamps, shorting plugs, and patch terminals. If different colors need to be used, then specify colors and numbers in each color ?

NAL : will be provided after selection of bid

4. Please provide existing Rack Manufacturer Part No.

NAL: NETRACK

5. Each LRU's circuit breaker's position not shown in RACK diagram, are they part of BIBO box? Each LRU's circuit breaker's position needs to be specified.

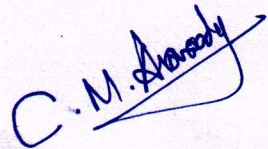
NAL : will be provided after selection of bid

6. Can NAL provide OEM guidelines/mounting details to mount LRU on test rig with recommended kits during bidding phase ?

NAL : Yes NAL will be provide the guideline to mount LRUs

7. Please provide cable length between ground floor and mezzanine floor.

NAL: Approx 20 ft



Signature of IO/PL





ISO:9001:2015
Certified

**Council of Scientific and Industrial Research
NATIONAL AEROSPACE LABORATORIES**

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Email: purchasek@nal.res.in

Date: 11-Aug-2020

CORRIGENDUM

Tender No. NAL/PUR/ALD/580/19-Z

Tender ID: 2020_CSIR_52134_1 Dated 6-Jul-2020

Sub: Changes in BoQ- PRICE SCHEDULE

Bidders are requested to refer the Pre-bid proceedings in line with the Tender Document for the specification and list of items to be quoted.

Bidders are required to quote as per the deliverables mentioned in Chapter-4 in PDF Format. The quantity mentioned in the BOQ [Excel Sheet] for few items as 1 (one) No. instead of quantity as mentioned in Chapter-4 – List of Deliverables (BoQ).

List of Deliverables is appended. The evaluation will be carried out considering unit price and the actual quantity required as per List of Deliverables.

The price-bid submitted in the pdf format [quantity as per Chapter-4] will be considered for financial evaluation.

Other clauses and terms of the bidding document remain unchanged.


11.8.20

**Controller of Stores & Purchase
For and behalf of CSIR**