

ANNEXURE – B
CORRIGENDUM FOR TECHNICAL SPECIFICATION

COASTAL DISASTER RISK REDUCTION PROJECT (CDRRP) - FISHERIES MANAGEMENT FOR SUSTAINABLE LIVELIHOODS (FIMSUL II) -

BID REFERENCE: - ICB No. 6 / CDRRP / FIMSUL II / GOODS -2015-16.

CORRIGENDUM TOWARDS PRE-BID MEETING QUERIES ON ICB FOR PROCUREMENT OF VHF EQUIPMENTS HELD ON 23.06.2015 AT 11.30 A.M. AT THE
CONFERENCE HALL OF THE OFFICE OF COMMISSIONER OF FISHERIES, CHENNAI-6.

Sl. No	AS PROVIDED IN THE BID DOCUMENT			AS CHANGED IN THE BID DOCUMENT & APPROVED BY THE BANK		
1	<u>PAGE 123-SCC-GCC 28.1 to 28.6 First line</u> The period of validity of the Warranty shall be: 24 Months			<u>Corrigendum in SECTION IX--SCC-GCC 28.1 to 28.6 First line</u> The period of validity of the Warranty shall be: 24 Months for radios equipment and one year for all accessories like batteries, chargers, antenna, cable and other connected accessories from the date of Supply and hand over of Goods. But it is the Bidder's responsibility to replace all accessories, if necessary so to maintain the VHF for the period of validity of the Warranty shall be: 24 Months Refer: SECTION IX – GCC 28.1 to 28.6		
2	Section VII Schedule of requirements under sub-heading 3. Technical specifications Page 72 to 76 3. TECHNICAL SPECIFICATION "Technical Specifications. The Goods and Related Services shall comply with following Technical Specifications and Standards:			<u>Corrigendum SECTION VII for all Technical Specification Changes.</u> <u>3. TECHNICAL SPECIFICATIONG</u> <u>Technical Specifications.</u> <u>The Goods and Related Services shall comply with following Technical Specifications and Standards:</u>		
	<i>Item No</i>	<i>Name of Goods or Related Service</i>	<i>Technical Specifications and Standards</i>	<i>Item No</i>	<i>Name of Goods or Related Service</i>	<i>Technical Specifications and Standards</i>

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	A	VHF Set – 5w Handheld Radio : (With built-in DSC capability, inbuilt/external GPS receiver, 2400 mAh Li-ion battery pack, Helical antenna and belt clip, spare battery pack 2400 mAh Li-ion, single position quick charger to operate on 230V, 50 Hz AC mains, Orange/ Yellow colour waist and Optional 12 V Charger for field use)		<u>A</u>	VHF Set – 5w Handheld Radio : (With built-in DSC capability, inbuilt/external GPS receiver, Li-ion battery pack, Helical antenna and belt clip, spare battery pack Li-ion, single position quick charger to operate on 230V, 50 Hz AC mains, Orange/ Yellow colour waist and Optional 12 V Charger for field use)	
	1	Marine certification	Equivalent to IPX7 or international standards IEC 60529B(2001) for water protection and class D(EN301-025) for Digital selective calling	<u>1</u>	Marine certification	Equivalent to IPX7 or international standards IEC 60529B (2001) for water protection and class D (EN301-025) for Digital selective calling or marine grade certification from approved test labs/OEM.
	2	Power Source	With built in rechargeable battery pack and spare battery for a minimum of 60 Minutes talk time	<u>2</u>	Power Source	Deleted

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	3	Battery Technology	Technology using Li-Ion without memory effect.	<u>3</u>	Battery Technology	Technology using Li-Ion or better without memory effect.
	4	Battery Capacity	Capable of delivering 10 hours of talk time in the following duty cycle for Tx = 10% Rx = 10% and idle = 80% for the set supplied and spare battery pack 2400 mAh required	<u>4</u>	Battery Capacity	1400mAh Li-Ion or better
	5	Battery charger	Suitable for quick charging within 3 hours for operation on 230 V, 12 A, 50 Hz AC mains supply	<u>5</u>	Battery charger	Suitable for quick charging for operation on 230 V, 50 Hz AC mains supply and Optional DC 12 V Charger for field use.
	6	Standards	Class F	<u>6</u>	Standards	The marine standard of VHF set as Class D standard
	7	Display	Alpha numeric display for Channel, High/Low power and Lat/Long co-ordinates with DSC calling. Provision for viewing left out capacity of battery pack	<u>7</u>	Display	Alpha numeric display for Channel, High/Low power and Lat/Long co-ordinates with DSC calling. Provision for viewing left out capacity of battery pack.

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	8	Busy channel lock out and time out timer	Built-in timeout timer programmed for 30 seconds	<u>8</u>	Busy channel lock out and time out timer	Built in programmable time out timer
	9	GPS receiver	12 channel receiver Built-in/External type	<u>9</u>	GPS receiver	Built-in 12 channel receiver
	10	Provision to hold the set	With a waist strap Fluorescent yellow / orange around the body of the fishermen	<u>10</u>	Provision to hold the set	NO CHANGE
	11	Colour of the waist belt	Bright orange / yellow colour	<u>11</u>	Colour of the waist belt	NO CHANGE
	12	Keypad	Built in type for making DSC calling for routine calling	<u>12</u>	Keypad	Making DSC calls without alphanumeric key pad.
	13	Distress calls correspondence	Through Dummy MMSI number	<u>13</u>	Distress calls correspondence	Through MMSI number

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	14	Distress	Automatic tuning between ch 16 and ch 70 when a distress call is heard.	<u>14</u>	Distress	NO CHANGE
	15	Channels to be	International channels: Emergency voice = 16 Emergency data = 70 Emergency Liaison with Coast Guard = 15, 17 (only after 16 is accessed) Hailing Channels = 9 Weather Channels = WX 1, WX 2 and WX3 Private channels: Channels A* and B*	<u>15</u>	Channels to be enables	As per international marine channel chart and as per WPC allocation.
	16	Frequency of o	156-163MHz	<u>16</u>	Frequency of operation	Tx: 156.025 to 157.425 MHz RX.160.625 TO 163.275 MHz
	17	Channel spacing	25 KHz	<u>17</u>	Channel spacing	25 KHz or lesser
	18	Testing of channel 70 under non radiating conditions	Mandatory	<u>18</u>	Testing of channel 70 under non radiating	DSC Testing under normal conditions

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					conditions	
	19	Proportional consumption of power	5 W high power and 1 W low power	<u>19</u>	Proportional consumption of power	NO CHANGE
	20	Frequency stability	+/-0.0005%(-20 ⁰ C to +60 ⁰ C)	<u>20</u>	Frequency stability	+/- 10PPM(-20°C to +60°C)
	21	Operation	Simplex, Press to talk with microphone and speaker	<u>21</u>	Operation	NO CHANGE
	22	Display	Alpha numeric display for Channel, High/Low power and Lat/Long co-ordinates with DSC calling. Provision for viewing left out capacity of battery pack.	<u>22</u>	Display	NO CHANGE
	23	Transmitter Modulation distortion	Less than 5 %	<u>23</u>	Transmitter Modulation distortion	NO CHANGE

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	24	Transmitter Spurious and harmonics	Less than – 60 dB	<u>24</u>	Transmitter Spurious and Harmonics	NO CHANGE
	25	Receiver Sensitivity	0.25 microvolt for 12 dB SINAD	<u>25</u>	Receiver Sensitivity	NO CHANGE
	26	Receiver Quieting Sensitivity	0.5 microvolt for 20dB SINAD	<u>26</u>	Receiver Sensitivity	0.5 microvolt
	27	Receiver Sensitivity	0.3 microvolt	<u>27</u>	Receiver Sensitivity	NO CHANGE
	28	Receiver Selectivity	-80dB	<u>28</u>	Receiver Selectivity	-70db
	29	Receiver rejection	-65dB	<u>29</u>	Receiver Image rejection	Less than -70 db
	30	Receiver Audio output	500 mW	<u>30</u>	Receiver Audio output	700mw @10% THD

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	31	Warranty	2 years	<u>31</u>	Warranty	Please refer Corrigendum in– SCC – GCC 28.1 to 28.6
	32	Operating manual with schematic diagram	One user manual with schematic diagram for maintenance, service and operation for every set.	<u>32</u>	Operating manual and service manual with schematic diagram	User manual with Schematic diagram for 100 sets and service manual for 20 sets.
	33	Programming Kit	One number for every 100 radios supplied or parts thereof.	<u>33</u>	Programmin g Kit	One number for every 100 radios supplied or parts thereof.
	TECHNICAL SPECIFICATION FOR VHF FIXED MOUNT MARINE MOBILE RADIO FOR TRAWLER			TECHNICAL SPECIFICATION FOR VHF FIXED MOUNT MARINE MOBILE RADIO FOR TRAWLER		
	Sl.No	NAME OF GOODS /RELATED SERVICES	TECHNICAL SPECIFICATIONS	Sl.No	NAME OF GOODS /RELATED SERVICES	TECHNICAL SPECIFICATIONS
	1.	25 W VHF Fixed mount Marine Radio for Trawler	VHF Fixed Mount Marine Radio for Trawler with channel 70 watch mode	1.	25 W VHF Fixed mount Marine Radio for Trawler	NO CHANGE

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	1.1.	Class	Class D DSC Marine Standards (ITU-R)	1.1.	Class	NO CHANGE
	1.2	Frequency Range	Tx: 156.025 to 157.425 MHz	1.2	Frequency Range	NO CHANGE
			RX.160.625 TO 163.275 MHz			NO CHANGE
	1.3	No of Channels	57(All INT & USA marine channels with ATIS)	1.3	No of Channels	As per international marine channel chart and as per WPC allocation. ATIS is not applicable.
	1.4	Channel spacing	25KHz	1.4	Channel spacing	25KHz or lesser
	1.5	Frequency stability	+/- 5PPM(-15 to +55 C)	1.5	Frequency stability	NO CHANGE
	1.6	Type of operation	Simplex & semi duplex	1.6	Type of operation	NO CHANGE

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	1.7	Type of emission	16K0G3E,16K0G2B	1.7	Type of emission	NO CHANGE
	1.8	Protection	a) Reverse polarity	1.8	Protection	NO CHANGE
			b) RF protection against high VSWR			NO CHANGE
	1.9	Working voltage	12V DC	1.9	Working voltage	NO CHANGE
	1.10	Display(LCD/LED)	Alphanumeric display to show the channel information , High /Low power, Lat/Long, vessel ID & UTC Time indicator	1.10	Display(LCD/LED)	NO CHANGE
	1.11	Scanning	Built-in	1.11	Scanning	NO CHANGE

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	1.12	Watch mode	Dual watch or more	1.12	Watch mode	NO CHANGE
	1.13	Automatic number identification(ANI)	Automatic transmission of identification system(ATIS)	1.13	Automatic number identification(ANI)	Through MMSI Number
	1.14	Keypad	Built in type of Alphanumeric key pad in radio for making DSC call	1.14	Keypad	For making DSC calls without alphanumeric keypad.
	1.15	Time out timer	Built-in	1.15	Time out timer	Mandatory
	1.16	Marine grade certifications from approved test labs	Equivalent to IPX7 or international standards IEC 60529(2001) for Water protection and class D (EN301-025) for Digital selective calling	1.16	Marine grade certifications from approved test labs	Equivalent to IPX7 or international standards IEC 60529(2001) for Water protection and class D (EN301-025) for Digital selective calling or marine grade certification from approved test labs/OEM

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	1.17	Antenna impedance	50 ohms	1.17	Antenna impedance	NO CHANGE
	1.18	Speaker	Built-in and external	1.18	Speaker	NO CHANGE
	1.19	DSC call testing	Mandatory	1.19	DSC call testing	DSC testing under normal working conditions
	1.20	Distress button with key cover	Built –in	1.20	Distress button with key cover	NO CHANGE
	1.21	Position polling	Mandatory	1.21	Position polling	NO CHANGE
	1.22	Automatic Acknowledgement for Position polling	Mandatory	1.22	Automatic Acknowledgement for Position polling	NO CHANGE
	1.23	Distress Alarm	Mandatory	1.23	Distress Alarm	NO CHANGE
	1.24	Noise cancelling mic with 16/9 and H/L	Mandatory	1.24	Noise cancelling mic with 16/9 and H/L	NOISE CANCELLING MIC 16/9
	1.25	30w PA 2 way capability for hailer	Built-in	1.25	30w PA 2 way capability for hailer	NO CHANGE

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	1.26	Pre-programmed fog horn function	Built-in	<u>1.26</u>	Deleted	deleted
	1.27	Hailer speaker (30W nominal at 13.8 V/4ohms)	Mandatory	1.27	Hailer speaker (30W nominal at 13.8 V/4ohms)	Mandatory
	2	TRANSMITTER		2	TRANSMITTER	
	2.1	RF power output	25W in High & 1 Watt in low	2.1	RF power output	NO CHANGE
	2.2	Frequency deviation	+/- 5 KHz	2.2	Frequency deviation	NO CHANGE
	2.3	Modulation distortion	Less than 5 %	2.3	Modulation distortion	NO CHANGE
	2.4	Spurious and harmonics	60dB or better	2.4	Spurious and harmonics	70dB or better
	3	RECEIVER		3	RECEIVER	

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	3.1	Sensitivity	0.25 microvolt for 15 dB SINAD	3.1	Sensitivity	NO CHANGE
	3.2	Quieting sensitivity	0.5 microvolt for 20 dB SINAD	3.2	Quieting sensitivity	NO CHANGE
	3.3	Squelch sensitivity	0.25 microvolt adjustable	3.3	Squelch sensitivity	NO CHANGE
	3.4	Selectivity	60dB or better	3.4	Selectivity	NO CHANGE
	3.5	Image rejection	65dB or better	3.5	Image rejection	NO CHANGE
	3.6	Audio output	3W or more	3.6	Audio output	4W or more
	3.7	Audio frequency response	+1dB to -3dB of 6dB Oct range from 300Hz to 3000Hz	<u>3.7</u>	Audio frequency response	NO CHANGE
	3.8	Audio distortion	Less than 5%	<u>3.8</u>	Audio distortion	Less than 10%
	4	NMEA 0183 standard port/suitable	Built-in	4	NMEA 0183 standard port/suitable (for	NO CHANGE

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		(for GPS)			GPS)	
	5	Operating temperature	-15°C to 55°C	5	Operating temperature	-15°C to 55°C
	6	Programming kit	One number of programming kit (USB/Suitable) to be supplied for every 20 radios at free of cost	6	Programming kit	One number of programming kit (USB/Suitable) to be supplied for 20 radios at free of cost
	7	Service manual	One number of service manual with full schematic diagram for every 20 sets at free of cost	7	Service manual	One number of service manual with full schematic diagram for each sets
	8	Maintenance and operational manual	To be supplied along with each set	8	Maintenance and operational manual	To be supplied along with each set
	9	GPS receiver	Garmin or equivalent standard 12 channel external GPS receiver with 10 mtrs flying leads in Polycarbonate housing	9	GPS receiver	Standard 12 channel external GPS receiver with NMEA 0183 port, 10 metres flying leads in Polycarbonate housing meeting IPX7 water proof standards with suitable interface, accessories and

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			meeting IPX7 water proof standards with suitable interface, accessories and mounting arrangements for boat use.			mounting arrangements for boat.
	10	ANTENNA		10	ANTENNA	
	10.1	Type	3dB Gain Omni directional fiberglass marine antenna 50 Ohms impedance with all accessories for erecting in trawler suitable for marine VHF radio.	10.1	Type	NO CHANGE
	10.2	Frequency	156 to 164 MHZ	10.2	Frequency	NO CHANGE
	10.3	Maximum power	100W	10.3	Maximum power	NO CHANGE
	10.4	Lightning protection	Direct ground	10.4	Lightning protection	NO CHANGE

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	10.5	Moisture resistant	Moisture proof	10.5	Moisture resistant	NO CHANGE
	10.6	Termination	Suitable	10.6	Termination	NO CHANGE
	10.7	Rated wind velocity	160 Kmph or above	10.7	Rated wind velocity	NO CHANGE
	10.8	Antenna impedance	50 Ohms	10.8	Antenna impedance	NO CHANGE
	10.9	VSWR	1.5:1	10.9	VSWR	NO CHANGE
	10.10	Polarisation	Vertical	10.10	Polarisation	NO CHANGE
	11	CABLE	10 Mtrs Coaxial cable with 6dB loss @ 200 MHz for 100 mtrs and suitable connectors at both the ends	11	CABLE	NO CHANGE
	12	Accessories		12	Accessories	
	13	Installation and Commissioning	Should be done by the tenderer at free of cost at the site requirements	13	Installation and Commissioning	NO CHANGE

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	14	Warranty	2 years on all the above items	14	Warranty	Please refer Corrigendum in– SCC – GCC 28.1 to 28.6 in first Line
	15	Field Test	Will be done at required site	15	Field Test	NO CHANGE
	16	Training	Should be done at free of cost by tenderer	16	Training	Please see the Corrigendum in Price and Completion Schedule – Related Services.

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