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APPENDIX "A"

The Specifications of Coastal Surveillance Radar

No.	Item	Specifications	Remarks
1	MISSION	Coastal Surveillance	
2	Frequency Band	x-Band	
3	Accuracy in Bearing	0.2° (typical value) For designated Tracks	Or Better
4	Accuracy in Range	30m (typical value) For designated Tracks	Or Better
5	Tracking Capacity, Air Targets.	100 tracks	Or Better
6	Tracking Capacity, Surface Targets	100 tracks	Or Better
7	Antenna Rotation	24 & 48 rpm	48 rpm must
8	Polarization	Horizontal	
9	Noise Fig.	4 dB	Or Better
10	Doppler processing.	Doppler processing package to detect small ,moving naval targets in heavy clutter and to improve air targets detection	
11	ECCM Capability	Frequency agility, complex prf(stagger, jitter ..), log processing , Frequency Diversity,.....	
12	Reliability	High	
13	MTBF	3000 hr.	Or Better
14	MTTR	30 min.	Or Better
15	Technology Used	Up to date Technology	
16	Detection of Air Target and surface target	- For Surface Targets: Radar Horizon - For Air Targets (height 3 km): 60 km	Or Better
17	Display (Tactical Display)	- LCD Colored. - Capable to be integrated with multiple radar sources, data link, command and control system, electronic warfare and navigation systems.	
18	Beam width	-narrow beam width in horizontal 1° -wide vertical beam width 30°	Or Better
19	Transmitter Type	Magnetron or solid state	
20	Transmitter Modes	The RADAR has more than one frequency channel.	
21	Radar display	- Range 96 miles. Indicate video signal and target tracks data in real time.	
22	Interfaces	At Least 3 RS-232 Ports are included and o/p tracks data (NEMA 183/Sentence: TTM) is available from the port.(For future use) Interface with compass, GPS, AIS, ...	
23	Detection of shell splash capability	The proposed Radar must be capable to detect the splash generated from shells landing in the sea	
24	Fielded and Proven	Radars should be proven & fielded (mention platforms).	
25	Power Supply	220 Volt AC , 50 Hz	

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APPENDIX "B"

Scope of supply

1- The Quantity required: (13) Radars (Complete set).

2- Complete detailed technical Specifications for the proposed Radar and comply matrix according to APPENDIX "A" Radar Specifications.

3- **The Quotation should include the following:**

a- Submit a detailed technical quotation for delivery, install the Radars and the interface with the compass and GPS .

b- The Contractor shall deliver to the EN all of the detailed interface information to interface the Submitted Radar with other EN systems. This information shall take the form of Interface Requirements Specification (IRS), Interface Design Document (IDD) and Interface Control Document (ICD). These documents shall describe the electrical interface and interface protocols, and provide definition for each message including the message fields, data element of the message and format of each data element. These documents may be updated as additional information on the interfaces becomes available to the Contractor and will be incorporated in the IRS as mutually agreed to by the GOE and the Contractor.

c- **Installation and Control Drawings:**

The Contractor shall provide engineering drawings and associated lists to support installation of the Submitted Radar to include:

(1) Block Diagrams.
(2) Outline and Installation Drawings.
(3) Cable Running Sheets.
(4) Summary List of Installation Material.

d- **Accompanying documents:**

The accompanying documents shall include:

(1) Technical Manual.
(2) Schematic Diagrams.
(3) Operation Instruction.
(4) Maintenance Instruction.
(5) Equipment List.
(6) Accompanying Spare Part List.
(7) Tool List.

e- **Training courses of the Submitted Radar:**

(1) Operation for 4 naval officers.
(2) Maintenance to the level of lower replaceable unit for 4 naval engineering officers.

f- **Spare parts:**

Submit detailed (break down) Itemized/Priced spare parts list (5 years)

g- **Acceptance Tests:**

(1) Execute Factory Acceptance Test (FAT) with attendance of 2 naval engineering officers .

(2) Execute Sight Acceptance Test (SAT).

The (FAT), and (SAT) procedures should cover all the Specifications and functions of the radar, and to be submitted to EN for reviewal and approval after contract award.

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