

F.No. 12/882/2011-P/BSF/WC/MHA-Prov-I 23
Bharat Sarkar/Government of India
Griha Mantralaya/Ministry of Home Affairs
PM Division

26, Man Singh Road, Jaisalmer House
New Delhi, Dated ~~December~~, 2015
01 Jan.

01 JAN 2015

To,

DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject: QRs and Trial Directive for Top Covered FRP Speed Boat (Anaconda Boat) Fitted with Twin Four Stroke OBM.

The QRs and Trial Directives in respect of Top Covered FRP Speed Boat (Anaconda Boat) as per Annexure have been accepted by the Competent Authority in MHA.

2. The CAPFs concerned will be accountable for correctness of the QRs/Trial Directives.
3. Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down Technical Specifications/QRs.


Yours faithfully,

Encl: As above


(P.K. Srivastava)
Under Secretary to the Govt of India
Tel: 23381278

Copy forwarded for necessary action to :-

The Section Officer (IT), MHA: It is requested to host the QRs and Trial Directives (soft copy attached) on the MHA website (under the page of Organizational Set up- Police Modernization Division- Qualitative Requirement under Vehicle Equipments.


(R.K. Soni)
Section Officer (Prov-I)

Copy to: DDG (Procurement), MHA.

**QUALITATIVE REQUIREMENT/TECHNICAL SPECIFICATION OF TOP COVERED FRP SPEED BOAT (ANACONDA BOAT)
FITTED WITH TWIN FOUR STROKE OBM**

S.No.	Specifications/Parameters	
General		
	The Top Covered Speed boats are better suited for effective domination of riverine border of South Bengal Ftr for the reasons enumerated below :-	
(a)	The Boat is to be designed and built under IRS class approval with appropriate class notation/Compliance certificate.	
(b)	Intact and damaged stability, survivability standards may be specified as (ISO 12217/as per Class).	
(c)	The Top Covered Speed Boat shall have the speed of 25 Knots.	
(d)	The Top Covered Speed Boats shall be able to carry 14 persons.	
(e)	The Top Covered Speed boats shall be able to ply for longer duration (8 Hrs) at a stretch.	
(f)	The Top Covered Speed Boat will provide protection from sun, rain, high speed wind to troops. Troops will be more comfortable and can perform their duties efficiently.	
(g)	Top Covered boats are more reliable, safe and efficient. Their procurement will enhance the domination efforts of sub units.	
(h)	The boat should be designed for operating in Sunderban delta/Inland water/Rivers of West Bengal with the protection up to sea state 3.	
(i)	Necessary manuals/ drawings/certificates to be obtained.	
(j)	Transom of FRP boat to be made rigid so as to fit the twin 4 stroke OBM.	
Specifications/Parameters		
1	Length	7.5 M \pm 0.5 M
2	Breadth	2.5 M \pm 0.5 M
3	Depth	1.0 M
4	Draft	0.3 M (max)

PO: M-1

M-1

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S.No.	Specifications/Parameters
5	Pay Load 12 + 2 Person
6	Construction Fiberglass reinforced plastic. Should be approved by Indian Register Shipping or any other member of IACS. Hull constructions process to be submitted to class society for approval.
7	Reinforcement Quality chopped strand mat & woven roving etc as per class approved drawings. Material is to be class approved type.
8	Matrix Isophthalic polyester resin/gelcoat boat grade integrally coloured. Resin is to be type approved by class.
9.	Framing Internal stiffener with FRP frames filled with P. U. foam.
10.	Buoyancy P. U. Foam as per class requirement.
11.	Deck Fiberglass reinforcement plastic. Material is to be class approved type.
12	Fittings All Marine grade aluminium alloy/ stainless steel Gr.31 6
13	Fender Heavy duty 'D' type rubber fender all around the boat. Additional 04 Nos portable fenders to be provided on board.
14	Engine Four stroke twin OBM not less than 75 HP of reputed brand with electric start, power trim and tilt, remote control and steering system with suitable propeller of reputed make. Rated speed of boat with full load capacity should be achieved at 85% MCR of the engine rating the same should be proven prior complete development. There should be service facilities available in India for maintenance of engine. The boat with 14 Person on Board (POB) shall give not less than 25 knots
15	Speed Provision to keep 20 Ltr jerry can with suitable fitment for securing of jerry can.
16	Fresh water Tank
17	Hull construction 'V' shape/semi planning to ply smoothly upto sea state-3 conditions. The boat's entire region underneath floor should be filled with polyurethane foam as per rule requirement to make the boat unsinkable. Side longitudinal benches will be provided for seating 12 people with enough leg space in the centre. The boat should be capable and extra strengthening to sustain the impact on hull.
18.	Endurance/Fuel 05 hours at 20 knots speed with full pay load. Inbuilt fuel tank capacity as per endurance requirement plus 20% reserve.

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S.No.

Specifications/Parameters

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19.	<p><u>Boat Eqpts to be supplied</u></p> <ul style="list-style-type: none"> • Cleats - 04 Nos • OBM Mounting arrangements • 02 Nos Fire extinguisher ABC type (cease fire) of 1 kg each with stowing provision duly provided with pressure test certificate. • Navigation Light as applicable as per COLREG 1972 • Electrical Bilge pump • Search light • Bollard - 03 Nos • FRP plastic inbuilt first aid box with first aid kit. • Cushion on all seats • A flush mounted GPS chart plotter having 8" display screen includes depth sounder facilitate to run with onboard battery. • 15 kg Graphinel anchor with 30 mtr long and 12mm dia. PP rope of sufficient strength. • 02 Nos Boat Hook having 12 feet length (aluminum make folding type) • Oars 02 Nos with (rowing lock) • Mooring Lines 32 Mtr • Rescue quilt and line • Horn • Distress signal box • Distress Flares • Repair clamp • Torch (with a signaling capability) • FRP repair Kit
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(90)

S.No	Specifications/Parameters
	<ul style="list-style-type: none"> • Additional equipment required for the engine Emergency starting cord Fuel lead, and fuel lead adaptor if required Fuel filter, cable snips and tie-wraps Spark plug Spare fuses Socket and torque handle for spark plug removal Pliers Screwdriver Spare propeller, nyloc nut and special tab washer Suitable sockets for propeller removal.
20	<p>Canopy</p> <ul style="list-style-type: none"> • Hard top cover type canopy made of acrylic or suitable light weighted material to sustain against heavy wind and storm.
21	<p>Lifesaving Equipments</p> <p>Following Life saving equipments as per SOLAS standard to be provided.</p> <ul style="list-style-type: none"> • Life Jackets-14 Nos (or 14+2 extra may be considered. • Life Buoys- 02 Nos (Life buoy with lifeline may be considered).
22	<p>Wind Screen – Walk through wind screen/window wiper.</p>
23.	<p>Buoyancy – P. U. Foam of 2.2 lbs/cft</p>
24.	<p>Bilge pump – Electrical bilge pump be supplied which will be run by power supply from on board battery/OBMs.</p>
25	<p>Life period</p> <ul style="list-style-type: none"> • 12 years for Boat • 10 years or 1200 hrs run whichever is earlier for OBM.
26	<p>Electrical power supply</p> <p>Electrical power supply to the boat for wheel console meter, navigational lights, search lights, GPS etc shall be drawn from on board OBMs rechargeable secondary battery.</p>
27	<p>Spares (OBS and B & D)</p> <p>Each boat shall be supplied with onboard spares for one year and B&D spares for five years. OEM to certify sufficiency of OBS and B&D scaled as per exploitation pattern as an average 360 hours per annum.</p>
28.	<p>OBM</p> <p>OBM shall be supplied with special tools and documentations/drawings. P.I.L of equipment fitted required for carrying out the repair of engine.</p>

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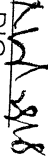
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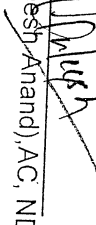
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S.No Specifications/Parameters

29	Additional features
The boats should have detachable arrangements for placing at least two Light Machine Guns FWD and AFT on the hull foundation of rigid nature.	
The boats should have sitting arrangement in such a way to provide observation on both sides.	
02 Nos spare OBM of the same Capacity/Make/Model should be provided by the firm alongwith the boats.	
Drawing/Documents and Equipment Manual to be provided.	

PO: 
(Naimuddin), DIG,
STS, BSF, New Delhi

M-1: 
(Kuleesh Anand), AC, NDRF


M-2: 
(Sarjeev Singh), DC, CRPF

M-3: 
(Inspr/MM Shiv Shankar Gupta), ITBP


M-4: 
(A Mandal), SO, SSB


M-5: 
(Lt Col Anil Singhroha), Assam Rifle


M-6: 
(Inspr Exec Nagendra Singh) CISF

M-7: 
(Vijay Singh Rawat) AC-1, NSG

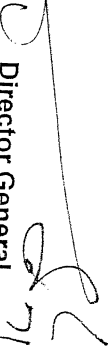
M-8: 
(Dr M M Gosal), DSP,
BPR&D

M-9: 
(P Mukh Priee), DC,
Water Wing Rajarhat (SB Ftr)

M-10: 
(G B Pathak) AC,
Water Wing Bhuj (Guj Ftr)

Co-opted M-11: 
(Ravi Yadav), Surveyor,
I R S New Delhi

Approved/Not-approved


Director General
Border Security Force
27/5/14

TRIAL DIRECTIVE FOR CARRYING OUT TRIAL EVALUATION AS PER THE QRS OF TOP COVERED FRP SPEED BOAT
(ANACONDA BOAT) FITTED WITH TWIN FOUR STROKE OBM

(86)

S.No	Specifications/Parameters	Trial Directive/Procedure suggested for trial for Board of Officers
General		
	The Top Covered Speed boats are better suited for effective domination of riverine border of South Bengal Ftr for the reasons enumerated below :-	
(a)	The Boat is to be designed and built under IRS class approval with appropriate class notation/Compliance certificate.	Check certificate issued by classification society for compliance.
(b)	Intact and damaged stability, survivability standards may be specified as (ISO 12217/as per Class).	Check certificate issued by Classification Society for compliance to stability norms.
(c)	The Top Covered Speed Boat shall have the speed of 25 Knots.	-
(d)	The Top Covered Speed Boats shall be able to carry 14 persons.	-
(e)	The Top Covered Speed boats shall be able to ply for longer duration (8 Hrs) at a stretch.	-
(f)	The Top Covered Speed Boat will provide protection from sun, rain, high speed wind to troops. Troops will be more comfortable and can perform their duties efficiently.	-
(g)	Top Covered boats are more reliable, safe and efficient. Their procurement will enhance the domination efforts of sub units.	-
(h)	The boat should be designed for operating in Sunderban delta/Inland water/Rivers of West Bengal with the protection up to sea state 3.	-
(i)	Necessary manuals/ drawings/certificates to be obtained.	-
(j)	Transom of FRP boat to be made rigid so as to fit the twin 4 stroke OBM.	-
Specifications/Parameters		
1	Length	7.5 M ± 0.5 M
2	Breadth	2.5 M ± 0.5 M
3	Depth	1.0 M
4	Draft	0.3 M (max)
5	Pay Load	12 + 2 Person
		To check with 14 persons sitting with all eqpts in the boat comfortably in calm water.

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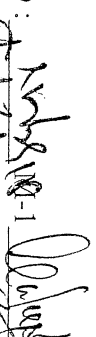
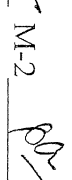





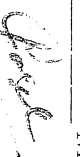
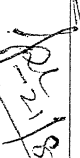


S. No.	Specifications/Parameters	Trial Directive/Procedure suggested for trial for Board of Officers
6	Construction Fiberglass reinforced plastic. Should be approved by Indian Register Shipping or any other member of IACs. Hull constructions process to be submitted to class society for approval.	Check the design and construction as per drawings and obtain class approved certificate. The inclining experiment, swamp test & stability check of the boat is to be carried out as per class requirement.
7	Reinforcement Quality chopped strand mat & woven roving etc as per class approved drawings. Material is to be class approved type.	Check the design and construction as per drawings and obtain class approved certificate. Type approval certificate of material is to be submitted by the builder.
8	Matrix Isophthelic polyester resin/gelcoat boat grade integrally coloured. Resin is to be type approved by class.	Check the design and construction as per drawings and obtain class approved certificate. Type approval certificate of material is to be submit by the builder.
9.	Framing Internal stiffener with FRP frames filled with P.U. foam.	Check the design and construction as per drawings and obtain class approved certificate.
10.	Buoyancy P.U. Foam as per class requirement.	Check the design and construction as per drawings and obtain class approved certificate.
11.	Deck Fiberglass reinforcement plastic. Material is to be class approved type.	Check the design and construction as per drawings and obtain class approved certificate.
12	Fittings All Marine grade aluminium alloy/ stainless steel Gr.316	Obtained manufacturer test certificates of fittings from builder.
13	Fender Heavy duty 'D' type rubber fender all around the boat. Additional 04 Nos portable fenders to be provided on board.	Physically check with approved drawings and materials test certificate obtain from builder.
14	Engine Four stroke twin OBM not less than 75 HP of reputed brand with electric start, power trim and tilt, remote control and steering system with suitable propeller of reputed make. Rated speed of boat with full load capacity should be achieved at 85% MCR of the engine rating the same should be proven prior complete development. There should be service facilities available in India for maintenance of engine.	Trials to be undertaken as per class specifications.
15	Speed The boat with 14 Person on Board (POB) shall give not less than 25 knots	Speed trials to be undertaken at full load with and against the tide/current in accordance with standard procedures.

PO: M-1 M-2 M-3 M-4 M-5
M-6 M-7 M-8 M-9 M-10 M-11

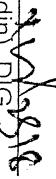
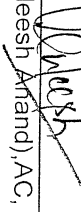










S.No.	Specifications/Parameters	Trial Directive/Procedure suggested for trial for Board of Officers
16	Fresh water Tank Provision to keep 20 Ltr jerry can with suitable fitment for securing of jerry can.	To be physically checked by measured volume of water.
17	Hull construction 'V' shape/semi planning to ply smoothly upto sea state-3 conditions. The boat's entire region underneath floor should be filled with polyurethane foam as per rule requirement to make the boat unsinkable. Side longitudinal benches will be provided for seating 12 people with enough leg space in the centre. The boat should be capable and extra strengthening to sustain the impact on hull.	Check the design and construction as per drawing and obtain class approved certificate.
18.	Endurance/ Fuel 05 hours at 20 knots speed with full pay load. Inbuilt fuel tank capacity as per endurance requirement plus 20% reserve.	Endurance/Fuel trials to be undertaken as per class specifications and recorded.
19.	<p><u>Boat Eqpts to be supplied</u></p> <ul style="list-style-type: none"> • Cleats - 04 Nos • OBM Mounting arrangements • 02 Nos Fire extinguisher ABC type (cease fire) of 1 kg each with stowing provision duly provided with pressure test certificate. • Navigation Light as applicable as per COLREG 1972 • Electrical Bilge pump • Search light • Bollard – 03 Nos • FRP plastic inbuilt first aid box with first aid kit. • Cushion on all seats • A flush mounted GPS chart plotter having 8" display screen includes depth sounder facilitate to run with onboard battery. • 15 kg Graphinel anchor with 30 mtr long and 12mm dia, PP rope of sufficient strength. • 02 Nos Boat Hook having 12 feet length (aluminium make folding type) • Oars 02 Nos with (rowing lock) • Mooring Lines 32 Mtr • Rescue quoit and line • Horn • Distress signal box • Distress Flares 	Check load test certificate or type test certificate as applicable for each fitting either from the OEM of the fitting or any other suitable certifying agency post testing.

PO: M-1 M-2 M-3 M-4 M-5
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S.No	Specifications/Parameters	Trial Directive/Procedure suggested for trial for Board of Officers
	<ul style="list-style-type: none"> • Repair clamp • Torch (with a signaling capability) • FRP repair Kit • Additional equipment required for the engine <p>Emergency starting cord Fuel lead, and fuel lead adaptor if required Fuel filter, cable snips and tie-wraps Spark plug Spare fuses Socket and torque handle for spark plug removal Pliers Screwdriver Spare propeller, nyloc nut and special tab washer Suitable sockets for propeller removal.</p>	
20	<p>Canopy Hard top cover type canopy made of acrylic or suitable light weighted material to sustain against heavy wind and storm.</p>	<p>To check the materials to ascertain its quality. Check the folding of canopy by physically doing it at the time of inspection.</p>
21	<p>Lifesaving Equipments Following Life saving equipments as per SOLAS standard to be provided.</p> <ul style="list-style-type: none"> • Life Jackets-14 Nos (or 14+2 extra may be considered). • Life Buoys-02 Nos (Life buoy with lifeline may be considered). 	<p>i) Lay out all the SOLAS eqpts, count and record. ii) Check SOLAS Type approved certificates issued by class/administration</p>
22	<p>Wind Screen – Walk through wind screen/window wiper.</p>	<p>To be checked physically for its functioning and quality as per class approved drawings/ designs.</p>
23.	<p>Buoyancy – P. U. Foam of 2.2 lbs/cft</p>	<p>To be checked physically for quality of material as per class approved drawings/designs.</p>
24.	<p>Bilge pump – Electrical bilge pump be supplied which will be run by power supply from on board battery/OBMs.</p>	<p>Check its functionality.</p>
25	<p>Life period</p> <ul style="list-style-type: none"> • 12 years for Boat • 10 years or 1200 hrs run whichever is earlier for OBM. 	<p>Check certificate issued by classification society for compliance.</p>

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S.No	Specifications/Parameters	Trial Directive/Procedure suggested for trial for Board of Officers
26	Electrical power supply Electrical power supply to the boat for wheel console meter, navigational lights, search lights, GPS etc shall be drawn from on board OBMs rechargeable secondary battery.	Check physically for working condition of all equipments.
27	Spare (OBS and B & D) Each boat shall be supplied with onboard spares for one year and B&D spares for five years. OEM to certify sufficiency of OBS and B&D scaled as per exploitation pattern as an average 360 hours per annum.	Check physically for working condition of all spares.
28.	OBM OBM shall be supplied with special tools and documentations/drawings. P.LL of equipment fitted required for carrying out the repair of engine.	Check physically for working condition of all spares/tools.
29	Additional features The boats should have detachable arrangements for placing at least two Light Machine Guns FWD and AFT on the hull foundation of rigid nature. The boats should have sitting arrangement in such a way to provide observation on both sides. 02 Nos spare OBM of the same Capacity/Make/Model should be provided by the firm alongwith the boats. Drawing/Documents and Equipment Manual to be provided.	Physically Check as per class approved drawings Physically check. Check physically for working condition of all equipments. Check physically for working condition of all equipments

- PO: 
(Naimuddin), DIG,
STS, BSF, New Delhi
- M-1: 
(Kuleesh Anand), AC, NDRF,
- M-2: 
(Sanjeev Singh), DC, CRPF
- M-3: 
(Inspr/MM Shiv Shankar Gupta), ITBP
- M-4: 
(A. Mandal), SO, SSB
- M-5: 
(Lt Col Anil Singhroha), Assam Rifle
- M-6: 
(Insp/Exec (Kardam Singh), CISF
- M-7: 
(Vijay Singh Rawat) AC-1, NSG
- M-8: 
(Dr M M Gosal), DSP,
BPR&D
- M-9: 
(P Mukherjee), DC,
Water Wing Rajahat (SB Ftr)
- M-10: 
(G B Pathak) AC,
Water Wing Bhuj (Guj Ftr)
- Co-opted M-11: 
(Ravi Yadav,) Surveyor,
I R S New Delhi

Approved/Not-approved


Director General
Border Security Force