# **Tender Addendum No. 1**

Tender Reference : Marine Department Shipbuilding Tender No. 7/2018

Procuring Department : Marine Department

Subject : Supply of One (1) High Speed Interception Training Boat for the Hong

Kong Police Force within 12 months after the Contract Date

## **Amendment as follows:**

## 1. Part II Conditions of Tender, Annex C Essential Requirements, Item 1(b)(i)

1(b)	Clause 8.1 of Part II of the	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have designed, built and delivered:
	Tender Documents	(i) at least ten (10) aluminium monohull vessels with length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angles of at least 24 degrees at transom midship;

# 2. Part II Conditions of Tender, Annex C Essential Requirements, Item 5

5	Paragraph 2.5 of Part VII of the Tender Documents	Length Overall (LOA):		10.5 to 12.0 metres (to be measured from bow to outboard engine tilted down, including the foam collar or fendering system as described in Paragraph 3.8 of Part VII)				
		Breadth	:	2.8 to 4.0 metres				
		Deadrise Angle	:	Not less than 24 degrees at transom midship				

# 3. Part II Conditions of Tender, Annex C Essential Requirements, Item 9

9	Paragraph 3.1.1 of Part VII of the Tender Documents	The hull of the proposed Vessel shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the transom midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.

## 4. Part V Schedules, Schedule 5 Statement of Compliance for the Essential Requirements, Item 1(b)(i)

1(b)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have designed, built and delivered:  (i) at least ten (10) aluminium monohull vessels with length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angles of at least 24 degrees at transom midship;	Yes/No *  If Yes, please provide details as required in Notes 1 and 2.
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#### 5. Part V Schedules, Schedule 5 Statement of Compliance for the Essential Requirements, Item 5

5	Paragraph 2.5 of Part VII of the Tender Documents	Length Overall (LOA):	10.5 to 12.0 metres (to be measured from bow to outboard engine tilted down, including the foam collar or fendering system as described in Paragraph 3.8 of Part VII)	Yes/No *  If Yes, please identify the relevant part of the tender to support this
		Breadth :	2.8 to 4.0 metres	compliance.
		Deadrise Angle :	Not less than 24 degrees at transom midship	

## 6. Part V Schedules, Schedule 5 Statement of Compliance for the Essential Requirements, Item 9

9	Paragraph 3.1.1 of Part VII of the Tender Documents	The hull of the offered Vessel shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the transom midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
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7. Part V Schedules, Schedule 5 Statement of Compliance for the Essential Requirements, Experience on the design and construction of vessel(s) specified in Item 1(b) of this Schedule.

I/We declare that, in the past ten (10) years prior to the Original Tender Closing Date, I/we have designed, built and delivered (i) \_\_\_\_\_\_ numbers of aluminium monohull vessels of length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angles of at least 24 degrees at transom midship; (ii) such vessels must have achieved the speed of at least fifty (50) knots; (iii) such vessels must be powered by at least three (3) outboard petrol engines; and (iv) at least five (5) vessels out of the vessels mentioned in 1(b)(i) above must have been supplied to at least one (1) government law enforcement, rescue or military agency, as set out below.

### 8. Part VII Technical Specifications, Paragraph 2.5

Length Overall (LOA): 10.5 to 12.0 metres (to be measured from bow to outboard engine tilted [E]

down, including the foam collar or fendering system as described in

Paragraph 3.8 of this Part VII)

Breadth: 2.8 to 4.0 metres [E]

Draft: Design to suit

Deadrise Angle: Not less than 24 degrees at transom midship [E]

### 9. Part VII Technical Specifications, Paragraph 3.1.1

3.1.1 The hull shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the transom midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.

# **Annex C – Essential Requirements**

Item	Tender Reference	Essential Requirements concerning experience (see Notes 1 to 5)				
1(a)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have:  (i) an aggregate of at least five (5) years' experience in performing and completing vessel design and construction contract(s) for aluminium-hulled patrol, law enforcement or rescue vessels; and  (ii) supplied such vessels to at least one (1) government law enforcement, rescue and/or military agency.				
1(b)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have designed, built and delivered:  (i) at least ten (10) aluminium monohull vessels with length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angles of at least 24 degrees at transom midship;  (ii) such vessels must have achieved the speed of at least fifty (50) knots;  (iii) such vessels must be powered by three outboard petrol engines; and  (iv) at least five (5) vessels out of the vessels mentioned in Item 1(b)(i) above must have been supplied to at least one (1) government law enforcement, rescue or military agency.				
Item	Tender Reference	Essential Requirements in Part VII				
2	Paragraph 1.1.3 of Part VII of the Tender Documents	The proposed Vessel shall be an aluminium alloy-hull, commercially available interception and enforcement craft powered by triple outboard engines.				
		outboard engines.				
3	Paragraph 2.3.1 of Part VII of the Tender Documents	The proposed Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be provided for the Vessel on delivery.				
4		The proposed Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be				
	of the Tender Documents  Paragraph 2.4.1 of Part VII	The proposed Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be provided for the Vessel on delivery.  When all of the engines are running at their declared maximum (rated) power, the guaranteed minimum highest achievable speed of the proposed Vessel shall be in excess of 50 knots in WMO Sea States 0 to 2 under Full Operational Load Condition specified in Paragraph				
4	of the Tender Documents  Paragraph 2.4.1 of Part VII of the Tender Documents  Paragraph 2.5 of Part VII of	The proposed Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be provided for the Vessel on delivery.  When all of the engines are running at their declared maximum (rated) power, the guaranteed minimum highest achievable speed of the proposed Vessel shall be in excess of 50 knots in WMO Sea States 0 to 2 under Full Operational Load Condition specified in Paragraph 1.7.2(e) of Part VII.  Length Overall (LOA): 10.5 to 12.0 metres (to be measured from bow to outboard engine tilted down, including the foam collar or fendering system as described in				

6	Paragraph 2.6.1 of Part VII of the Tender Documents	Material of hull structure shall be marine grade aluminium alloy.	
7	Paragraph 2.7.1 of Part VII of the Tender Documents	The proposed Vessel shall be designed to have sufficient space for carrying at least three (3) crew and nine (9) other persons. Shock mitigating seats for twelve (12) persons including crew shall be provided with the Vessel as per Paragraphs 3.7.4, 3.7.5 and 3.7.6 of Part VII.	
8	Paragraph 2.7.2(c) of Part VII of the Tender Documents	Endurance for : Sufficient fuel for 2.5 hours at fuel capacity : Contract Speed at the Full Operational Load Condition (as per Paragraph 1.7.2(e) of Part VII) without refuelling	
9	Paragraph 3.1.1 of Part VII of the Tender Documents	The hull of the proposed Vessel shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the transom midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.	
10	Paragraph 3.1.3 of Part VII of the Tender Documents	The strength of the hull structure shall be calculated based on the vertical acceleration at the longitudinal centre of gravity (LCG) being equal to or greater than 6g where g is the gravitational force while fulfilling the Contract Speed specified in Paragraph 2.4.3 of Part VII.	
11	Paragraph 3.2.2 of Part VII of the Tender Documents	The proposed Vessel shall meet the stability requirements of the IMO's Intact Stability Code given in MSC.267(85) (as amended) or ISO 12217-1 Category B or as per stability requirements of the RO.	
12	Paragraph 4.1.1 of Part VII of the Tender Documents	The Vessel shall be powered by three (3) marine four-stroke outboard petrol spark ignition engines of adequate power to deliver the Contract Speed as stated in Paragraph 2.4.3 of Part VII. The engines shall drive stainless steel fixed pitch propellers through integral gearboxes. The propellers driven by the outer engines (port and starboard) shall be counter-rotating, and the propeller driven by the centre engine shall be either rotating in the same direction as that driven by port or starboard engine.	
13	Paragraph 4.1.4 of Part VII of the Tender Documents	The engines shall have a three-star rating (ultra-low emission) or higher as per the California Air Resources Board star system that describes exhaust emissions of both two-stroke and four-stroke outboard engines or equivalent standards.	

- Note 1: The Tenderer's experience in completing the vessel contract(s) must have been gained as a primary contractor. Experience gained in the capacity of a sub-contractor will **not** be considered. The experience of a parent, subsidiary or affiliated company or any proposed sub-contractor of the Tenderer will not be counted and considered in the tender evaluation.
- Note 2: Even if the Tenderer has gained experience in performing more than one vessel contract over the same period, only the actual duration of that period will be taken into account in determining the aggregate experience of the Tenderer for Item 1(a).

**Schedule 5 - Statement of Compliance for the Essential Requirements** 

Item	Tender Reference	Essential Requirements concerning experience	Compliance Statement (State here Yes or No)
1(a)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have:  (i) an aggregate of at least five (5) years' experience in performing and completing vessel design and construction contract(s) for aluminium-hulled patrol, law enforcement or rescue vessels; and  (ii) supplied such vessels to at least one (1) government law enforcement, rescue and/or military agency.	Yes/No *  If Yes, please provide details as required in Notes 1 and 2.
1(b)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have designed, built and delivered:  (i) at least ten (10) aluminium monohull vessels with length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angles of at least 24 degrees at transom midship;  (ii) such vessels must have achieved the speed of at least fifty (50) knots;  (iii) such vessels must be powered by three outboard petrol engines; and  (iv) at least five (5) vessels out of the vessels mentioned in Item 1(b)(i) above must have been supplied to at least one (1) government law enforcement, rescue or military agency.	Yes/No *  If Yes, please provide details as required in Notes 1 and 2.
Item	Tender Reference	Essential Requirements in Part VII	Compliance Statement (State here Yes or No)
2	Paragraph 1.1.3 of Part VII of the Tender Documents	The offered Vessel shall be an aluminium alloy-hull, commercially available interception and enforcement craft powered by triple outboard engines.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
3	Paragraph 2.3.1 of Part VII of the Tender Documents	The offered Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be provided for the Vessel on delivery.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.

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4	Paragraph 2.4.1 of Part VII of the Tender Documents	When all of the engines are running at their declared maximum (rated) power, the guaranteed minimum highest achievable speed of the offered Vessel shall be in excess of 50 knots in WMO Sea States 0 to 2 under Full Operational Load Condition specified in Paragraph 1.7.2(e) of Part VII.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
5	Paragraph 2.5 of Part VII of the Tender Documents	Length Overall (LOA):  10.5 to 12.0 metres (to be measured from bow to outboard engine tilted down, including the foam collar or fendering system as described in Paragraph 3.8 of Part VII)  Breadth:  2.8 to 4.0 metres  Deadrise Angle:  Not less than 24 degrees at transom midship	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
6	Paragraph 2.6.1 of Part VII of the Tender Documents	Material of hull structure shall be marine grade aluminium alloy.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
7	Paragraph 2.7.1 of Part VII of the Tender Documents	The offered Vessel shall be designed to have sufficient space for carrying at least three (3) crew and nine (9) other persons. Shock mitigating seats for twelve (12) persons including crew shall be provided with the Vessel as per Paragraphs 3.7.4, 3.7.5 and 3.7.6 of Part VII.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
8	Paragraph 2.7.2(c) of Part VII of the Tender Documents	Endurance for fuel capacity:  Sufficient fuel for 2.5 hours at Contract Speed at the Full Operational Load Condition (as per Paragraph 1.7.2(e) of Part VII) without refuelling	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
9	Paragraph 3.1.1 of Part VII of the Tender Documents	The hull of the offered Vessel shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the transom midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.
10	Paragraph 3.1.3 of Part VII of the Tender Documents	The strength of the hull structure shall be calculated based on the vertical acceleration at the longitudinal centre of gravity (LCG) being equal to or greater than 6g where g is the gravitational force while fulfilling the Contract Speed specified in Paragraph 2.4.3 of Part VII.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.

### Experience on the design and construction of vessel(s) specified in Item 1(b) of this Schedule.

I/We declare that, in the past ten (10) years prior to the Original Tender Closing Date, I/we have designed, built and delivered (i) \_\_\_\_\_ numbers of aluminium monohull vessels of length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angles of at least 24 degrees at transom midship; (ii) such vessels must have achieved the speed of at least fifty (50) knots; (iii) such vessels must be powered by at least three (3) outboard petrol engines; and (iv) at least five (5) vessels out of the vessels mentioned in 1(b)(i) above must have been supplied to at least one (1) government law enforcement, rescue or military agency, as set out below.

	-	Purchaser's Name (See Note 2 below)	_	Contract Date (dd/mm/yy)	Date of Delivery of Completed Vessel (dd/mm/yy)	Aluminium Monohull (Y = Yes; N = No)	Length overall	Breadth	Deadrise Angle at transom	Speed (knots)	No. of outboard Engines	No. of Vessels Built	Remarks
1													
2													

- Note 1: Please provide details of the previous contracts to prove compliance with the Essential Requirements as specified in Items 1(a) and (b) of this Schedule plus supporting documents including relevant contracts and delivery acceptance documents or other documentary evidence, such as pictures, general arrangement drawings, lines plan, offset table, and hydrostatic data. Delivery acceptance documents are preferably signed by the relevant purchaser of the vessel or a classification society. To safeguard against technical non-compliance, Tenderers are encouraged to provide details of as many such previous contracts as possible.
- Note 2: Tenderers shall, unless under a legal obligation to keep the details of a previous client confidential, provide details of individual government law enforcement, rescue or military agencies references to prove compliance with the Essential Requirements as specified in Items 1(a) and 1(b) of this Schedule. The details should include, but not be limited to, agency name, city/state/province/nation, contact name & title, email address and telephone number. Where the Tenderer is under a legal obligation to keep confidential the details of a previous government law enforcement, rescue or military agency for which it has supplied a vessel upon which it seeks to rely as evidence of its previous experience in accordance with Items 1(a) and (b) of this Schedule, the Government may, at its sole discretion, agree to accept entries in the tables entitled "Experience on the hull design and construction of vessel(s) specified in Item 1(a) of this Schedule" and the table entitled "Experience on the design and construction of vessel(s) specified in Item 1(b) of this Schedule" in which the "Purchaser's Name" in column three of the respective tables have been omitted.
- Note 3: Please see Clause 5.3 of and Annex C to the Conditions of Tender before completing this Schedule 5.

## 2.5 Principal Dimensions

Length Overall (LOA): 10.5 to 12.0 metres (to be measured from bow to [E]

outboard engine tilted down, including the foam collar or fendering system as described in Paragraph

3.8 of this Part VII)

Breadth: 2.8 to 4.0 metres [E]

Draft: Design to suit

Deadrise Angle: Not less than 24 degrees at transom midship [E]

#### 2.6 Material of the Structure

2.6.1 Material of hull structure shall be marine grade aluminium alloy.

[E]

## 2.7 Vessel Operating Profile and Environment

- 2.7.1 The Vessel shall be designed to have sufficient space for carrying at least three (3) crew and nine (9) other persons. Shock mitigating seats for twelve (12) persons including crew shall be provided with the Vessel as per Paragraphs 3.7.4, 3.7.5 and 3.7.6 of this Part VII. [E]
- 2.7.2 The Vessel shall be designed for deployment by the HKPF on at least 10 hours per day and 52 days per year including both day and night time operational deployment. The Vessel shall be designed and built to operate in Hong Kong Waters.

Summary of Operational Hours / Range

(a) Number of hours/day: 10 hours engine running time per day

(b) Number of days/year: 52 days/year

(c) Endurance for fuel Sufficient fuel for 2.5 hours at Contract [E]

capacity: Speed at the Full Operational Load

Condition (as per Paragraph 1.7.2(e) of this

Part VII) without refuelling

2.7.3 The Vessel shall be able to operate (fulfil its operational roles) safely within Hong Kong Waters, including in swamps and rough sea conditions up to and including WMO Sea State 5 and to survive WMO Sea State 6 while returning to base.

### 2.8 Markings and Colour Scheme

- 2.8.1 (a) The Contractor shall provide the markings and colour scheme for the Vessel. All painting colour scheme for the Vessel and fittings shall be approved by GNC before application.
  - (b) Draft marks, names, insignia and other colour markings should be in a colour contrasting with the hull and console's colour.
- 2.8.2 All labelling shall be in both traditional Chinese and English and as per applicable rules and regulations.

## Chapter 3 - Hull

#### 3.1 Hull Construction and Scantlings

- 3.1.1 The hull shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the transom midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.

  [E]
- 3.1.2 The hull configuration specified at Paragraph 3.1.1 of this Part VII shall not incorporate a horizontal flat area at the keel unless the design also incorporates additional appropriate features to prevent "side-kick" or "skidding" during high speed manoeuvres.
- 3.1.3 The strength of the hull structure shall be calculated based on the vertical acceleration at the longitudinal centre of gravity (LCG) being equal to or greater than 6g where g is the gravitational force while fulfilling the Contract Speed specified in Paragraph 2.4.3 of this Part VII. [E]
- 3.1.4 The design stresses and scantling including internal structural members shall be determined according to the RO Requirements.
- 3.1.5 The Contractor's quality control personnel shall carry out quality control throughout the construction of the Vessel. Inspection shall be carried out by the RO's surveyors and MD assigned personnel or consultants.
- 3.1.6 Any openings in the hull and the deck shall comply with the applicable RO's rules for watertight integrity if not otherwise specified by MD or the HKPF at or prior to the kick-off meeting.
- 3.1.7 The hull design shall incorporate a self-bailing deck with scuppers capable of draining the cockpit in accordance with the ISO 11812:2001 Small Craft Watertight Cockpits and Quick-Draining Cockpits requirements for Design Category B or as per the RO Requirements.
- 3.1.8 The hull design shall incorporate reinforcement at the keel for conducting beach landing operations.
- 3.1.9 The hull shall be fitted with appropriate sacrificial anodes.
- 3.1.10 The hull construction material shall be new and of a type which has been certificated by the RO in accordance with the RO Requirements. Mill certificates shall be obtained and records shall be strictly maintained to match them with the various sections produced during Vessel's manufacture.

#### 3.1.11 Welding and Fabrication

- (a) All welding and fabrication shall be implemented according to the applicable requirements of any one of the Classification Societies listed in Paragraph 2.3.4 (a) to (i) of this Part VII.
- (b) Welded joints shall be designed and constructed carefully to conform to the latest established standards to prevent fatigue failure. Cutting for edge preparation shall be performed by qualified persons to achieve the correct angle, shape and smooth finish of the edges. Only qualified welders shall perform the welding work.
- (c) The Contractor shall submit certification of the qualifications of each individual welder and inspector. Welds installed using unqualified procedures or welding performed by noncertified welders shall be subject to removal by the Contractor at its own expense.
- (d) The structure fabrication and quality control regime shall include but not be limited to the following:
  - (i) Inventory of incoming material, consumables, components and machinery;
  - (ii) Traceability procedures for materials together with traceability identification codes which shall be serial and indexed to the controlled manufacturing procedures;

# **Annex C – Essential Requirements**

Item	Tender Reference	Essential Requirements concerning experience (see Notes 1 to 5)				
1(a)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have:  (i) an aggregate of at least five (5) years' experience in performing and completing vessel design and construction contract(s) for aluminium-hulled patrol, law enforcement or rescue vessels; and  (ii) supplied such vessels to at least one (1) government law enforcement, rescue and/or military agency.				
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Item	Tender Reference	Essential Requirements in Part VII				
2	Paragraph 1.1.3 of Part VII of the Tender Documents	The proposed Vessel shall be an aluminium alloy-hull, commercially available interception and enforcement craft powered by triple outboard engines.				
3	Paragraph 2.3.1 of Part VII of the Tender Documents	The proposed Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be provided for the Vessel on delivery.				
4	Paragraph 2.4.1 of Part VII of the Tender Documents	When all of the engines are running at their declared maximum (rated) power, the guaranteed minimum highest achievable speed of the proposed Vessel shall be in excess of 50 knots in WMO Sea States 0 to 2 under Full Operational Load Condition specified in Paragraph 1.7.2(e) of Part VII.				
5	Paragraph 2.5 of Part VII of the Tender Documents	Length Overall (LOA):  10.5 to 12.0 metres (to be measured from bow to outboard engine tilted down, including the foam collar or fendering system as described in Paragraph 3.8 of Part VII)				
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6	Paragraph 2.6.1 of Part VII of the Tender Documents	Material of hull structure shall be marine grade aluminium alloy.						
7	Paragraph 2.7.1 of Part VII of the Tender Documents	The proposed Vessel shall be designed to have sufficient space for carrying at least three (3) crew and nine (9) other persons. Shock mitigating seats for twelve (12) persons including crew shall be provided with the Vessel as per Paragraphs 3.7.4, 3.7.5 and 3.7.6 of Part VII.						
8	Paragraph 2.7.2(c) of Part VII of the Tender Documents	Endurance for : Sufficient fuel for 2.5 hours at fuel capacity Contract Speed at the Full Operational Load Condition (as per Paragraph 1.7.2(e) of Part VII) without refuelling						
9	Paragraph 3.1.1 of Part VII of the Tender Documents	The hull of the proposed Vessel shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.						
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12	Paragraph 4.1.1 of Part VII of the Tender Documents	The Vessel shall be powered by three (3) marine four-stroke outboard petrol spark ignition engines of adequate power to deliver the Contract Speed as stated in Paragraph 2.4.3 of Part VII. The engines shall drive stainless steel fixed pitch propellers through integral gearboxes. The propellers driven by the outer engines (port and starboard) shall be counter-rotating, and the propeller driven by the centre engine shall be either rotating in the same direction as that driven by port or starboard engine.						
13	Paragraph 4.1.4 of Part VII of the Tender Documents	The engines shall have a three-star rating (ultra-low emission) or higher as per the California Air Resources Board star system that describes exhaust emissions of both two-stroke and four-stroke outboard engines or equivalent standards.						

- Note 1: The Tenderer's experience in completing the vessel contract(s) must have been gained as a primary contractor. Experience gained in the capacity of a sub-contractor will **not** be considered. The experience of a parent, subsidiary or affiliated company or any proposed sub-contractor of the Tenderer will not be counted and considered in the tender evaluation.
- Note 2: Even if the Tenderer has gained experience in performing more than one vessel contract over the same period, only the actual duration of that period will be taken into account in determining the aggregate experience of the Tenderer for Item 1(a).

**Schedule 5 - Statement of Compliance for the Essential Requirements** 

Item	Tender Reference	Essential Requirements concerning experience	Compliance Statement (State here Yes or No)			
1(a)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have:  (i) an aggregate of at least five (5) years' experience in performing and completing vessel design and construction contract(s) for aluminium-hulled patrol, law enforcement or rescue vessels; and  (ii) supplied such vessels to at least one (1) government law enforcement, rescue and/or military agency.	Yes/No *  If Yes, please provide details as required in Notes 1 and 2.			
1(b)	Clause 8.1 of Part II of the Tender Documents	In the past ten (10) years prior to the Original Tender Closing Date, the Tenderer must have designed, built and delivered:  (i) at least ten (10) aluminium monohull vessels with length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angle of at least 24 degrees at midship;  (ii) such vessels must have achieved the speed of at least fifty (50) knots;  (iii) such vessels must be powered by three outboard petrol engines; and  (iv) at least five (5) vessels out of the vessels mentioned in Item 1(b)(i) above must have been supplied to at least one (1) government law enforcement, rescue or military agency.	Yes/No *  If Yes, please provide details as required in Notes 1 and 2.			
Item	Tender Reference	Essential Requirements in Part VII				
2	Paragraph 1.1.3 of Part VII of the Tender Documents	The offered Vessel shall be an aluminium alloy-hull, commercially available interception and enforcement craft powered by triple outboard engines.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.			
3	Paragraph 2.3.1 of Part VII of the Tender Documents	The offered Vessels shall be designed and constructed in accordance with the latest edition of the rules and regulations of the RO acceptable to MD. For each and every Vessel, design approval and survey during construction shall be carried out by the RO, and examinations and tests shall be witnessed by the RO. A hull construction certificate shall be provided for the Vessel on delivery.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.			

	1				
4	Paragraph 2.4.1 of Part VII of the Tender Documents	When all of the engines are running at their declared maximum (rated) power, the guaranteed minimum highest achievable speed of the offered Vessel shall be in excess of 50 knots in WMO Sea States 0 to 2 under Full Operational Load Condition specified in Paragraph 1.7.2(e) of Part VII.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		
5	Paragraph 2.5 of Part VII of the Tender Documents	Length Overall (LOA):  10.5 to 12.0 metres (to be measured from bow to outboard engine tilted down, including the foam collar or fendering system as described in Paragraph 3.8 of Part VII)  Breadth:  2.8 to 4.0 metres  Deadrise Angle:  Not less than 24 degrees at midship	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		
6	Paragraph 2.6.1 of Part VII of the Tender Documents	Material of hull structure shall be marine grade aluminium alloy.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		
7	Paragraph 2.7.1 of Part VII of the Tender Documents	The offered Vessel shall be designed to have sufficient space for carrying at least three (3) crew and nine (9) other persons. Shock mitigating seats for twelve (12) persons including crew shall be provided with the Vessel as per Paragraphs 3.7.4, 3.7.5 and 3.7.6 of Part VII.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		
8	Paragraph 2.7.2(c) of Part VII of the Tender Documents	Endurance for fuel capacity:  Sufficient fuel for 2.5 hours at Contract Speed at the Full Operational Load Condition (as per Paragraph 1.7.2(e) of Part VII) without refuelling	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		
9	Paragraph 3.1.1 of Part VII of the Tender Documents	The hull of the offered Vessel shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		
10	Paragraph 3.1.3 of Part VII of the Tender Documents	The strength of the hull structure shall be calculated based on the vertical acceleration at the longitudinal centre of gravity (LCG) being equal to or greater than 6g where g is the gravitational force while fulfilling the Contract Speed specified in Paragraph 2.4.3 of Part VII.	Yes/No *  If Yes, please identify the relevant part of the tender to support this compliance.		

7. Part V Schedules, Schedule 5 Statement of Compliance for the Essential Requirements, Experience on the design and construction of vessel(s) specified in Item 1(b) of this Schedules, Sc	dule
Tender Ref.: Marine Department Shipbuilding Tender No. 7/2018	

### Experience on the design and construction of vessel(s) specified in Item 1(b) of this Schedule.

I/We declare that, in the past ten (10) years prior to the Original Tender Closing Date, I/we have designed, built and delivered (i) \_\_\_\_\_ numbers of aluminium monohull vessels of length overall between 10.5 and 12.0 metres, breadth between 2.8 metres and 4.0 metres, and deadrise angle of at least 24 degrees at midship; (ii) such vessels must have achieved the speed of at least fifty (50) knots; (iii) such vessels must be powered by at least three (3) outboard petrol engines; and (iv) at least five (5) vessels out of the vessels mentioned in 1(b)(i) above must have been supplied to at least one (1) government law enforcement, rescue or military agency, as set out below.

	-	Purchaser's Name (See Note 2 below)	_	Contract Date (dd/mm/yy)	Date of Delivery of Completed Vessel (dd/mm/yy)	Aluminium Monohull (Y = Yes; N = No)	Length overall	Breadth	Deadrise Angle at transom	Speed (knots)	No. of outboard Engines	No. of Vessels Built	Remarks
1													
2													

- Note 1: Please provide details of the previous contracts to prove compliance with the Essential Requirements as specified in Items 1(a) and (b) of this Schedule plus supporting documents including relevant contracts and delivery acceptance documents or other documentary evidence, such as pictures, general arrangement drawings, lines plan, offset table, and hydrostatic data. Delivery acceptance documents are preferably signed by the relevant purchaser of the vessel or a classification society. To safeguard against technical non-compliance, Tenderers are encouraged to provide details of as many such previous contracts as possible.
- Note 2: Tenderers shall, unless under a legal obligation to keep the details of a previous client confidential, provide details of individual government law enforcement, rescue or military agencies references to prove compliance with the Essential Requirements as specified in Items 1(a) and 1(b) of this Schedule. The details should include, but not be limited to, agency name, city/state/province/nation, contact name & title, email address and telephone number. Where the Tenderer is under a legal obligation to keep confidential the details of a previous government law enforcement, rescue or military agency for which it has supplied a vessel upon which it seeks to rely as evidence of its previous experience in accordance with Items 1(a) and (b) of this Schedule, the Government may, at its sole discretion, agree to accept entries in the tables entitled "Experience on the hull design and construction of vessel(s) specified in Item 1(a) of this Schedule" and the table entitled "Experience on the design and construction of vessel(s) specified in Item 1(b) of this Schedule" in which the "Purchaser's Name" in column three of the respective tables have been omitted.
- Note 3: Please see Clause 5.3 of and Annex C to the Conditions of Tender before completing this Schedule 5.

## 2.5 Principal Dimensions

Length Overall (LOA): 10.5 to 12.0 metres (to be measured from bow to

outboard engine tilted down, including the foam collar or fendering system as described in Paragraph

[E]

[E]

[E]

3.8 of this Part VII)

Breadth: 2.8 to 4.0 metres [E]

Draft: Design to suit

Deadrise Angle: Not less than 24 degrees at midship [E]

#### 2.6 Material of the Structure

2.6.1 Material of hull structure shall be marine grade aluminium alloy.

## 2.7 Vessel Operating Profile and Environment

- 2.7.1 The Vessel shall be designed to have sufficient space for carrying at least three (3) crew and nine (9) other persons. Shock mitigating seats for twelve (12) persons including crew shall be provided with the Vessel as per Paragraphs 3.7.4, 3.7.5 and 3.7.6 of this Part VII.
- 2.7.2 The Vessel shall be designed for deployment by the HKPF on at least 10 hours per day and 52 days per year including both day and night time operational deployment. The Vessel shall be designed and built to operate in Hong Kong Waters.

Summary of Operational Hours / Range

(a) Number of hours/day: 10 hours engine running time per day

(b) Number of days/year: 52 days/year

(c) Endurance for fuel Sufficient fuel for 2.5 hours at Contract

capacity: Speed at the Full Operational Load

Condition (as per Paragraph 1.7.2(e) of this

Part VII) without refuelling

2.7.3 The Vessel shall be able to operate (fulfil its operational roles) safely within Hong Kong Waters, including in swamps and rough sea conditions up to and including WMO Sea State 5 and to survive WMO Sea State 6 while returning to base.

### 2.8 Markings and Colour Scheme

- 2.8.1 (a) The Contractor shall provide the markings and colour scheme for the Vessel. All painting colour scheme for the Vessel and fittings shall be approved by GNC before application.
  - (b) Draft marks, names, insignia and other colour markings should be in a colour contrasting with the hull and console's colour.
- 2.8.2 All labelling shall be in both traditional Chinese and English and as per applicable rules and regulations.

## Chapter 3 - Hull

#### 3.1 Hull Construction and Scantlings

- 3.1.1 The hull shall be a deep "V" with minimum deadrise angle of twenty four (24) degrees at the midship, with suitable appendages or other design features to minimise potential "side-kick" or "skidding" effects during high-speed manoeuvring.
- 3.1.2 The hull configuration specified at Paragraph 3.1.1 of this Part VII shall not incorporate a horizontal flat area at the keel unless the design also incorporates additional appropriate features to prevent "side-kick" or "skidding" during high speed manoeuvres.
- 3.1.3 The strength of the hull structure shall be calculated based on the vertical acceleration at the longitudinal centre of gravity (LCG) being equal to or greater than 6g where g is the gravitational force while fulfilling the Contract Speed specified in Paragraph 2.4.3 of this Part VII. [E]
- 3.1.4 The design stresses and scantling including internal structural members shall be determined according to the RO Requirements.
- 3.1.5 The Contractor's quality control personnel shall carry out quality control throughout the construction of the Vessel. Inspection shall be carried out by the RO's surveyors and MD assigned personnel or consultants.
- 3.1.6 Any openings in the hull and the deck shall comply with the applicable RO's rules for watertight integrity if not otherwise specified by MD or the HKPF at or prior to the kick-off meeting.
- 3.1.7 The hull design shall incorporate a self-bailing deck with scuppers capable of draining the cockpit in accordance with the ISO 11812:2001 Small Craft Watertight Cockpits and Quick-Draining Cockpits requirements for Design Category B or as per the RO Requirements.
- 3.1.8 The hull design shall incorporate reinforcement at the keel for conducting beach landing operations.
- 3.1.9 The hull shall be fitted with appropriate sacrificial anodes.
- 3.1.10 The hull construction material shall be new and of a type which has been certificated by the RO in accordance with the RO Requirements. Mill certificates shall be obtained and records shall be strictly maintained to match them with the various sections produced during Vessel's manufacture.

#### 3.1.11 Welding and Fabrication

- (a) All welding and fabrication shall be implemented according to the applicable requirements of any one of the Classification Societies listed in Paragraph 2.3.4 (a) to (i) of this Part VII.
- (b) Welded joints shall be designed and constructed carefully to conform to the latest established standards to prevent fatigue failure. Cutting for edge preparation shall be performed by qualified persons to achieve the correct angle, shape and smooth finish of the edges. Only qualified welders shall perform the welding work.
- (c) The Contractor shall submit certification of the qualifications of each individual welder and inspector. Welds installed using unqualified procedures or welding performed by non-certified welders shall be subject to removal by the Contractor at its own expense.
- (d) The structure fabrication and quality control regime shall include but not be limited to the following:
  - (i) Inventory of incoming material, consumables, components and machinery;
  - (ii) Traceability procedures for materials together with traceability identification codes which shall be serial and indexed to the controlled manufacturing procedures;
  - (iii) Lofting, cutting, fit up, welding, forming and dimensions of structural components;