

VOLVO OCEAN RACE

ROUND THE WORLD 2008 – 2009

Notice of Race

Amendment No4

(A) Part 2, 2.1 THE RACE Parts (a) – (f)

Remove

Sections (a) to (f) inclusive

Replace with

- (a) The Volvo Ocean Race 2008 – 2009 will consist of 11 ocean *Legs*, 7 Inshore Races and 7 *Pro-Am Races*. The total distance for the *Race* is approximately 40,000 miles.
- (b) The *Race* will start with an *In Port Race* on Saturday 4 October 2008 in the port of Alicante, Spain. *Leg 1* will start at 1400 on 11 October 2008 from Alicante, Spain.
- (c) The finish will be in the Baltic Sea on or about 4 July 2009.
- (d) The 11 ocean *Legs* will consist of:

Leg 1: Alicante to Cape Town, an approximate distance of 6,500 n.m., leaving the Archipelago of Fernando de Noronha, which shall be a scoring waypoint, to port.

Leg 2: Cape Town to Kochi, an approximate distance of 4,450 n.m. leaving 20°20.00S 057°40.00E (Mauritius), which shall be a scoring waypoint and the way–line, drawn as a great circle segment, between 05°10.00S 48°40.00E and 15°00.00N 58°30.00E to port. The Leg will start on the 15 November 2008.

Leg 3: Kochi to the Middle East, an approximate distance of 1,650 n.m. and starting 10 December 2008.

Leg 4: The Middle East to Singapore, an approximate distance of 3,650 n.m., leaving the island of Pulau We, Indonesia, which will be a scoring waypoint to starboard and starting 20 December 2008

Leg 5: Singapore to Qingdao, an approximate distance of 2,500 n.m. and starting 25 January 2009.

Leg 6: Qingdao to Rio, an approximate distance of 12,300 n.m. with a scoring waypoint at the latitude of 36 degrees South, leaving Cape Horn, which shall be a scoring waypoint to port and starting 21 February 2009. The course may include provision to reduce the risk of sailing through areas of significant ice.

Leg 7: Rio to Boston, an approximate distance of 4,900 n.m. leaving the Archipelago of Fernando de Noronha to port, which shall be a scoring waypoint and starting 18 April 2009.

Leg 8: Boston to Galway an approximate distance of 2,550 n.m. and starting 23 May 2009. There will be a scoring waypoint on the longitude of St John, Newfoundland.

Leg 9: Galway to Goteborg an approximate distance of 950 n.m. and starting 13 June 2009.

Leg 10: Goteborg to Stockholm an approximate distance of 525 n.m. and starting 21 June 2009.

Leg 11: Stockholm to St Petersburg an approximate distance of between 370 n.m and 500 n.m on a flexi-course (specific course will be detailed in the Sailing Instructions) and starting 2 July 2009

- (e) The following *Ports* are designated as *Pit Stops*: Middle East and Goteborg
- (f) *In Port Races* will be conducted in Alicante, Singapore, Qingdao, Rio, Boston, Galway and Stockholm. Each *In Port Race* shall be approximately two hours in length.

(B) Part 3, 3.6 ADVERTISING Part (a)

Remove

- (a) The Organising Authority will require *Boats* to display logos on the topsides, on both sides of the hull, aft of the bow and forward of the transom. The logos shall not be wider than 1.8m. The first and last 2.0m of the topsides of both sides of the hull shall be a single uninterrupted colour. No other logo shall be placed within 1m of the Organising Authority supplied bow and stern logos.

Replace with

- (a) The Organising Authority will require *Boats* to display logos on the topsides, on both sides of the hull, aft of the bow. The logos shall not be wider than 1.8m. The first 2.0m of the topsides of both sides of the hull shall be a single uninterrupted colour. No other logo shall be placed within 1m of the Organising Authority supplied bow logos.

(C) Part 3, 3.6 ADVERTISING Part (h)

Remove

- (h) The placement and size of the national letters and sail numbers on mainsails, shall be in accordance with RRS Appendix G.

Replace with

- (h) If national letters and sail numbers are placed on mainsails, the placement shall be in accordance with RRS Appendix G.

(D) APPENDIX 1, A1.4 SATELLITE COMMUNICATION AND MEDIA EQUIPMENT Part (a)

Rename to **A1.4 SATELLITE AND RADIO COMMUNICATION AND MEDIA EQUIPMENT**

Remove

(a) **Large Satellite Voice and Data Antenna**

The antenna shall be mounted as per Volvo Open 70 Rule Version 2 Section 2.2.10.

The main control unit shall be mounted on the reverse side of the Media Station back plate (Volvo Open 70 Rule Version 2 Section 8.3.2). The upper most edge of the unit shall be no more than 150mm below the local deck head.

The main control unit requires 24 volts DC supply and consumes approximately 40 watts receive and 150 watts transmit. A remote isolator switch, supplied, shall be mounted near the helmsman so that the transmission from the antenna can be shut off should a *Crew Member* need to go aft of the helm position while the antenna is transmitting. The associated red LED transmission indicator light, supplied, shall be mounted on the forward face of the antenna support structure in clear view of the isolator switch, and shall be wired as per the installation instructions.

Weights and Dimensions:

Array Unit incl. dome:	45kg, height 1047mm, diameter 925mm
Main Control Unit:	4kg, 380mm x 70mm x 373mm
Handset:	0.3kg, 56mm x 45mm x 215mm
Remote isolator switch:	0.8kg, approx.100mm x 100mm x 100mm
Distress Alarm Unit:	0.3kg, 228mm x 35mm x 90mm
Cable 0.238 kg/m:	approx. 2.3kg
Miscellaneous mounting equipment:	3kg
Approximate total weight:	55.7kg

Replace with

(a) **Large Satellite Voice and Data Antenna**

The antenna shall be mounted as per Volvo Open 70 Rule Version 2 Section 2.2.10. The safe working distance from the antenna is 1.3m

The main control unit shall be mounted on the reverse side of the Media Station back plate (Volvo Open 70 Rule Version 2 Section 8.3.2). The upper most edge of the unit shall be no more than 150mm below the local deck head.

The main control unit requires 24 volts DC supply and consumes approximately 40 watts receive and 150 watts transmit.

Weights and Dimensions:

Array Unit incl. dome:	38kg approx., height 1047mm, diameter 650mm
Main Control Unit:	2.0kg, 265mm x 43mm x 273mm
Handset:	0.3kg, 56mm x 45mm x 215mm
Cable 5mm:	2.0kg approx.
Miscellaneous mounting equipment:	2.0kg
Approximate total weight:	44.3Kg

(E) **APPENDIX 1, A1.4 SATELLITE COMMUNICATION AND MEDIA EQUIPMENT**

Insert new section (e) and re-number subsequent sections.

Insert

(e) **Radio Communication Equipment**

- (i) A 24volt GMDSS marine HF radio transmitter with a PEP of 150 watts and with digital selective calling. This equipment shall be installed to meet GMDSS Class E specification.

Weights and dimensions:

	Weight	Width	Height	Depth
Control Unit	1.5 Kg	200mm	100mm	95mm
Tuning Unit	19.0 Kg	390mm	445mm	127mm
Antenna Tuning Unit	3.3 Kg	290mm	500mm	80mm

- (ii) A 24volt GMDSS marine VHF radio transmitter/receiver with a minimum PEP of 25 watts and digital selective calling covering all International and USA marine channels. This equipment shall be installed to meet Class A specification. The radio has a combined antenna function that meets Class A requirements through a single antenna.

Weights and dimensions:

	Weight	Width	Height	Depth
Control Unit	4.1 Kg	200mm	100mm	210mm
Inc Hand set				

- (iii) A waterproof hand held marine VHF radio transmitter/receiver with a minimum PEP of 5 watts covering all International and USA marine channels. The radio will be supplied with three battery packs and a charging cradle and shall be stowed ready for immediate use.

The HF and the VHF radios shall be mounted in such a way that if the compartment in which they are located becomes flooded, the equipment and any auxiliary equipment necessary for it to function, will not be under water (or if under water shall function normally) in still conditions.

(F) APPENDIX 1, A1.4 SATELLITE COMMUNICATION AND MEDIA EQUIPMENT Part (f)

Remove

- (e) (ii) One gun microphone shall be mounted internally on the deck head forward of the main hatch pointing out of the main hatch to pick up all ambient background noise.

Replace with

- (f) (ii) One waterproof microphone shall be mounted on the aft face of the coachroof, adjacent to the main companionway hatch. The microphone shall be mounted at least 400mm above the cockpit sole

(G) A1.6. PERSONAL MAN OVERBOARD ALARM SYSTEM

Remove

A man overboard alarm system that operates via Sonar and 4 personal identity beacons (id-pods) per Crew Member plus spares. The id-pods shall be permanently mounted on each Crew Members foul weather jacket, foul weather trousers and constant wear survival suit in a location that will be constantly underwater should a

Crew Member fall overboard wearing that item of clothing. The forth unit is recommended to be worn at all times when not wearing foul weather clothing. Drawings of the id-pods will be available from the Organising Authority. The receiver, similar in dimension to a through hull depth transducer fitting, shall be fitted aft of the main engine and forward of the aft bulkhead in a location where it is most likely to remain in contact with the sea. The alarm display head shall be mounted on deck in clear view of the main cockpit and shall be connected to the Boats permanently mounted GPS unit. When the system is activated it records the location of the activation on the Boats GPS unit.

Ongoing development of this product is expected and should a tracking variant be available and tested before the equipment delivery time, this will be substituted for the above system. To facilitate accurate detection of the id-pod it is believed the tracking system will incorporate two through hull transducers to allow triangulation. The alarm display head may become larger to allow for direction indication as well as the man overboard alert.

id-pod (expected to be) approx.	100mm x 40mm x 8mm
id-pod weight, (expected to be)	<100 grams

Replace with

A man overboard alarm system, that operates via radio, complete with personal identity beacons plus spares will be supplied. Further details of this system will be supplied when known.

(H) A2.5 COMMUNICATIONS EQUIPMENT Part (a)

Remove

- (i) A GMDSS marine HF radio transmitter covering the band 1.6 to 27.5MHz and receiver covering the band 500KHz to 29.999 MHz with a minimum PEP of 125 watts and with digital selective calling. This equipment shall meet Class E specification.
- (iv) A GMDSS marine VHF radio transmitter/receiver with a minimum PEP of 25 watts and digital selective calling covering all International and USA marine channels. This equipment shall meet Class D specification.
- (v) A main masthead mounted VHF antenna (of unity gain or better) using RG213 co-axial cable from masthead antenna to VHF receiver.
- (vii) A waterproof hand held marine VHF radio transmitter/receiver with a minimum PEP of 5 watts covering all International and USA marine channels. The radio with three battery packs shall be stowed ready for immediate use.

Replace (v) with

- (v) A main masthead mounted VHF antenna (of unity gain or better) using RG213 or LMR-400-DB co-axial cable from masthead antenna to VHF receiver.

Re-number remaining sections (i) – (iv)

(I) A2.5 COMMUNICATIONS EQUIPMENT Part (b)

Remove

(b) Installation

The HF and the VHF shall be mounted in such a way that if the compartment in which they are located becomes flooded, the equipment and any auxiliary equipment necessary for it to function, will not be under water (or if under water shall function normally) in still conditions.

Re-number remaining section from (c) to (b)

ENDS

Andy Hindley
Racing Director
For and on behalf of the Organising Authority

16 November 2007