

# Hybrid Catamaran Air Cushion Ship (HCAC)



Textron Marine & Land's Hybrid Catamaran Air Cushion Ship (HCAC) is a fast, stealthy and agile J-4 compliant platform that meets or exceeds all thresholds, plus most objectives of the United States Navy's requirement. The HCAC is capable of sustained sprints of 50-plus knots for 24 hours, while achieving high-efficiency in all speed ranges resulting in an excellent overall payload/speed/range ratio. The catamaran Hybrid hull offers very shallow draft capability resulting in UNDEX protection and extreme maneuverability. The large flight deck accommodates a variety of aircraft, while also allowing generous mission spaces. The C4N suite is an open architected state-of-the-art NOACE compliant system that reduces decision time and enhances decision quality, while allowing for future growth potential as technologies emerge.

## MAJOR EQUIPMENT LIST

Description	Model
High-Speed Main Propulsion	(2) GE LM2500 Gas Turbine
Low-Speed Main Propulsion	(2) MAN/B&W 12VP185 Diesel
Low-Speed Auxiliary Propulsion	(1) Electric Bow Thruster (Schottel)
Lift System	(2) Vericor TF-50 Gas Turbine
Main Generator	Detroit Diesel/MTU 12V4000 Diesels

## HULL FORM DESCRIPTION

The HCAC is a new and unique hybrid, combining the best traits of both the catamaran and the surface effect ship (SES). When operating as a catamaran (off the air cushion) on its diesel engines, it has an efficient cruise speed of 18-20 knots. As an SES (on the air cushion), it cruises efficiently at 50+ knots.

### Performance Characteristics

- Superb low-speed maneuverability
- Incorporates Ro/Ro technology
- Reconfigurable mission spaces
- Accepts all required rotary wing aircraft
- Hanger accommodates MH-60 or two OH-58s
- Carrying capacity for up to 55 tonnes of JP-5 aircraft fuel

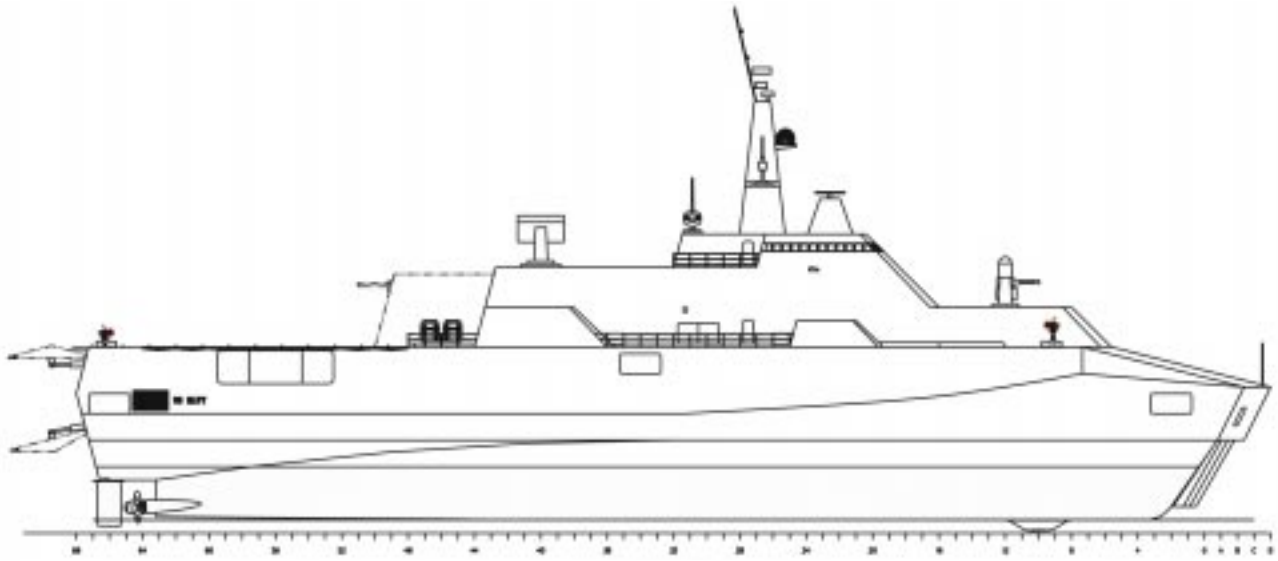
### Design Characteristics

- Flexible mission module design
- J-4 Compliant

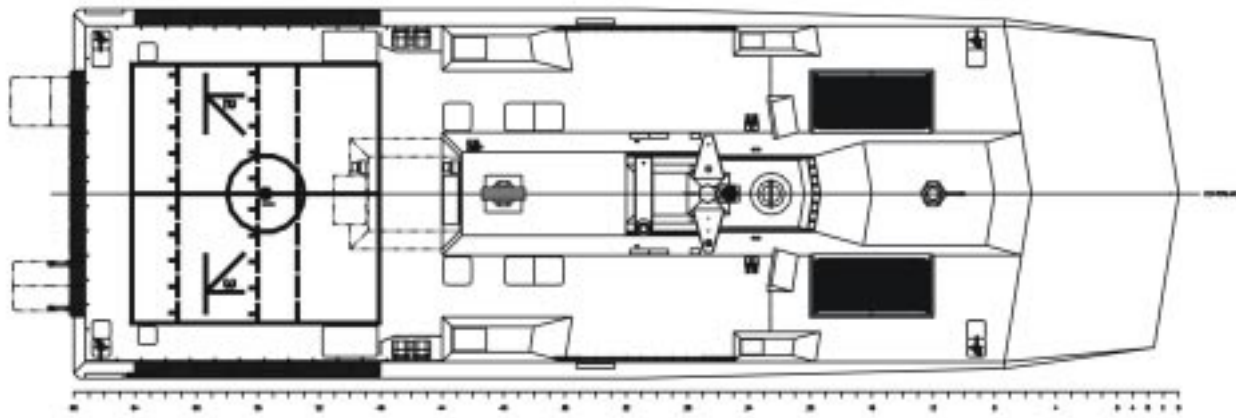
## PRINCIPAL DIMENSIONS AND CHARACTERISTICS

Characteristic	Data	Characteristic	Data
• Overall length	295.27 ft.	• Range at 50 kts, SES mode	1,400 nm
• Overall beam	98.42 ft.	• Range at 18 kts, CAT mode	5,250 nm
• Overall height	126 ft.	• Aviation Support	Hangers MH-60R/S aircraft
• Navigational draft (on cushion)	6.56 ft.	• Deck Area	Single Ops up to V-22
• Navigational draft (off cushion)	16.4 ft.	• Deck Area	Dual Ops through OH-58
• Lightship displacement	1,025 tonnes	• Flight Deck Area	
• Full load displacement	1,640 tonnes	• Hanger retracted	95.1 ft. L x 89.6 ft. W
• Fuel capacity - Ship's Fuel	275 tonnes	• Hanger extended	70.5 ft. L x 89.6 ft. W
• Fuel capacity - Aviation	55 tonnes	• Mission bay	20 m x 20 m x 6 m
• Operating crew	42	• Armament	CIWS
• Accommodations	75		CROWS (4)
• Maximum speed, SES mode	55 kts		Ram launcher
• Maximum speed, CAT mode	20 kts		NULKA/SRBOC launchers
• Cruise speed, CAT mode	18 kts		

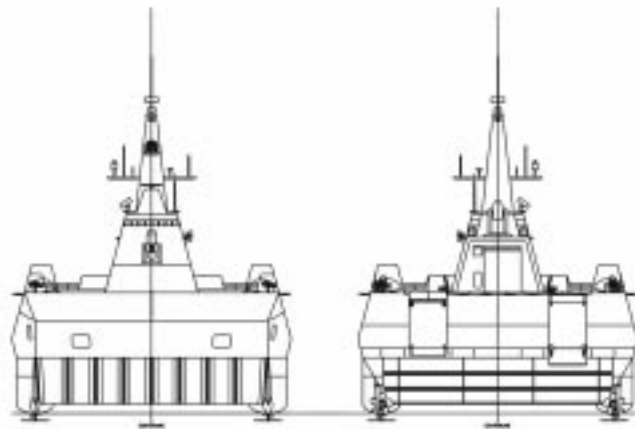
## GENERAL ARRANGEMENTS



HCAC Outboard Profile



HCAC Exterior Deck Plan



HCAC Bow and Stern Views

**Textron Marine & Land** // **TEXTRON** Systems

19401 Chef Menteur Hwy., New Orleans, LA 70129 USA  
www.tmls.textron.com

Questions relating to this concept should be addressed to:

Ken Maloney, LCS Program Director, telephone 504-254-6373  
e-mail [kmaloney@tmls.textron.com](mailto:kmaloney@tmls.textron.com)