



# **Straits Project 7**

## **Emergency Towing Vessel (ETV) Service in SOMS**

**5<sup>th</sup> CF Singapore**

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# BACKGROUND

- ❖ 34<sup>th</sup> TTEG - Agreed for a concept study to examine the feasibility and requirements for ETV services in the SOMS.
- ❖ 35<sup>th</sup> TTEG - S\$50,000 was provided from the IMO Straits of Malacca and Singapore Fund for the study. The study to be completed and presented at the 4<sup>th</sup> CF.
- ❖ Project awarded to Smit Singapore. Concept study report was presented at the 4<sup>th</sup> CF in Malacca.

# CONCEPT STUDY KEY RECOMMENDATIONS

- ❖ ETV Roles
- ❖ Response times and areas of operations and ideal number of ETV assets
- ❖ Specific requirements for the ETV response and technical specifications
- ❖ Basic design of ETV, such as the capacity of the tug, its capabilities, and other operational characteristics.

# ROLES OF ETV IN SOMS

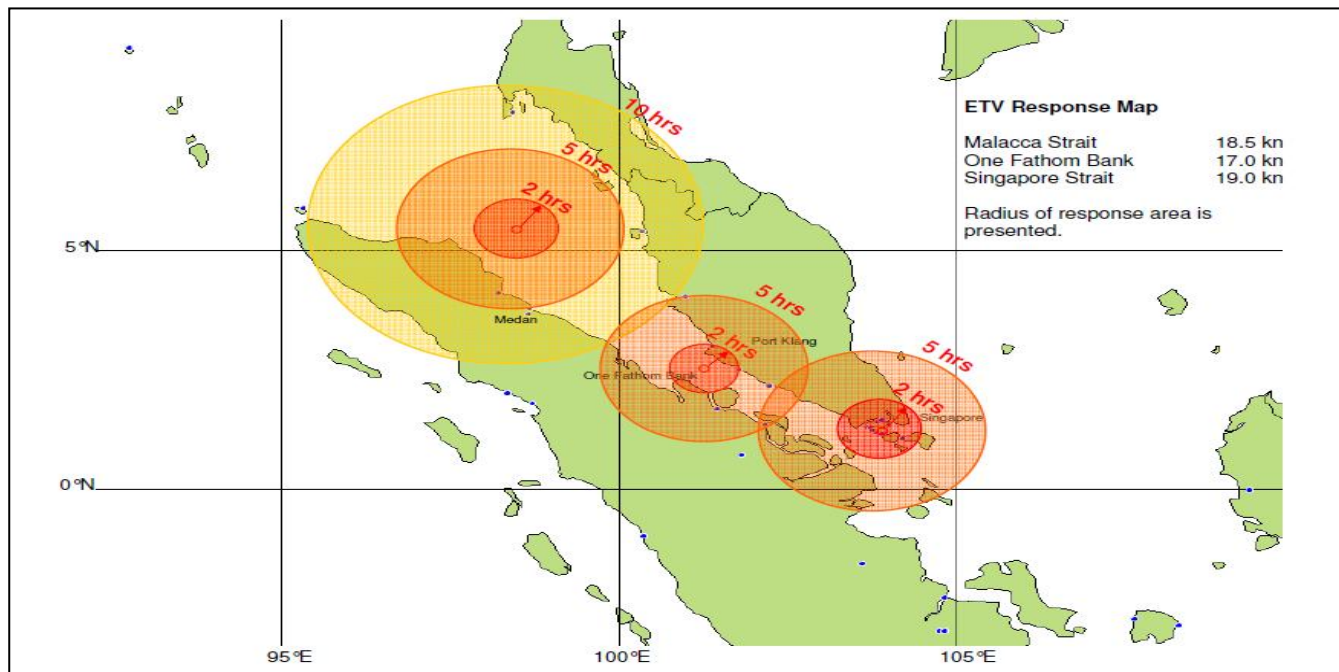
## Primary Role

- ❖ Provide emergency towing service on a 24/7 basis in the Straits to remove the threat of significant pollution that may be posed by casualty vessel.

## Secondary Role

- ❖ HNS/ Oil Pollution response
- ❖ Fire Fighting
- ❖ Search and Rescue
- ❖ First Emergency Response - Damage assessment and Oil recovery
- ❖ First Aid Salvage – Diving, Refloating vessel from stranding/ grounding
- ❖ TSS Patrolling - Detection and warning of hazards to navigation
- ❖ Maintenance of Aids to Navigation

# ETV RESPONSE AREAS



Response Area	Malacca strait ETV 1	One Fathom Bank ETV 2	Singapore strait ETV 3
BP (Tonnes)	147	105	162
Max area radius (NM)	185	85	95
Vessel Speed (Knots)	18.5	17.0	19.0
Endurance (Days)	35	25	25

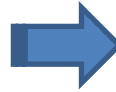
# ETV SPECIFICATIONS

	Malacca Strait ETV 1	One Fathom Bank ETV 2	Singapore Strait ETV 3
L.O.A ( <i>m</i> )	75.9	71.9	75
Breadth ( <i>m</i> )	15	15.5	15.5
Draught ( <i>m</i> )	6.0	5.2	5.7
Nos. Crew	13	13	13
Nos. Supernumerary	10	10	10
Bollard pull ( <i>Tonnes</i> )	147	105	162
Design Speed ( <i>Knots</i> )	18.5	17.0	19.0
Endurance ( <i>Days</i> )	35	25	25
Main engine ( <i>MW</i> )	13.3	9.5	15.3
Bow Thruster ( <i>kW</i> )	2 x ~ 800	2 x ~ 800	2 x ~ 800
Stern Thruster ( <i>kW</i> )	1 x ~ 600	1 x ~ 600	1 x ~ 600

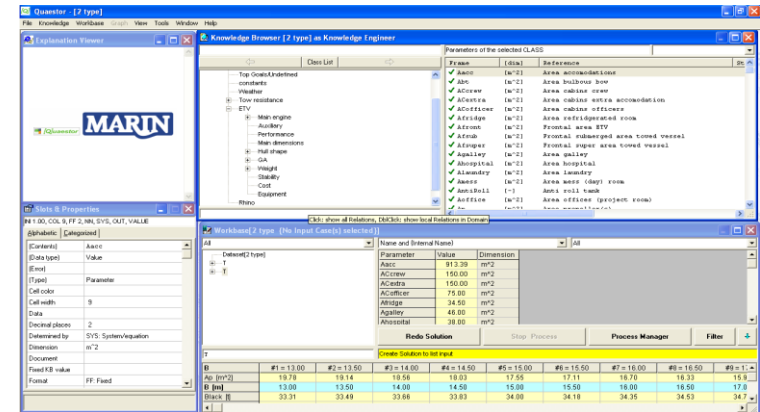
# ETV CONCEPT DESIGN

## REQUIREMENT

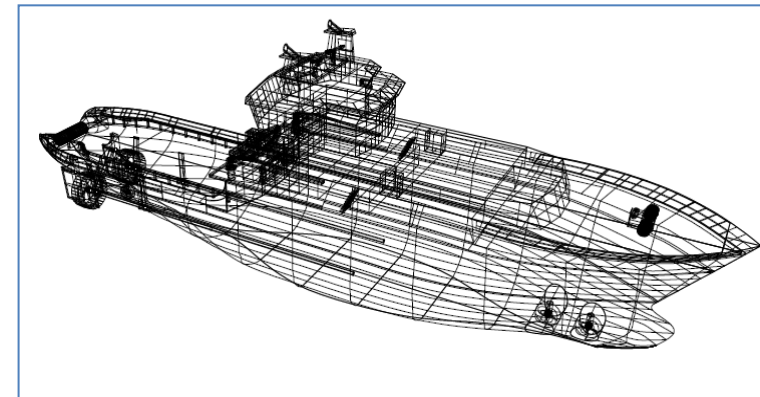
		Malacca Strait: ETV 1	One Fathom bank: ETV 2	Singapore Strait: ETV 3
1	Endurance on economic speed [days]	35	25	25
2	Anti-roll tank [Y/N]	Yes	Yes	Yes
3	Extra Accommodation [No. people]	10	10	10
4	Dynamic positioning [1 / 2 / 3]	DP 1	DP 1	DP 1
5	Fire Fighting [Y/N]	FIFI 1	FIFI 1	FIFI 1
6	Helicopter deck [Y/N]	No	No	No
7	Survivor capacity [No. people]	50	50	50
8	Project containers [TEU]	2	2	2



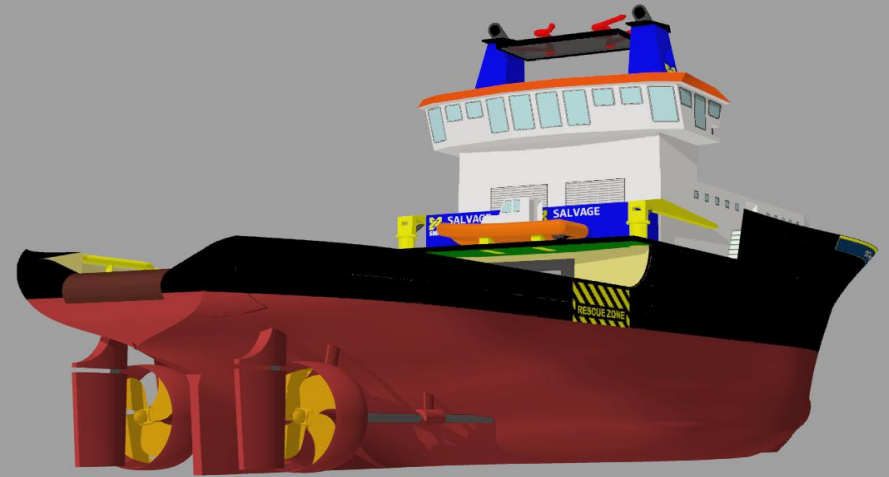
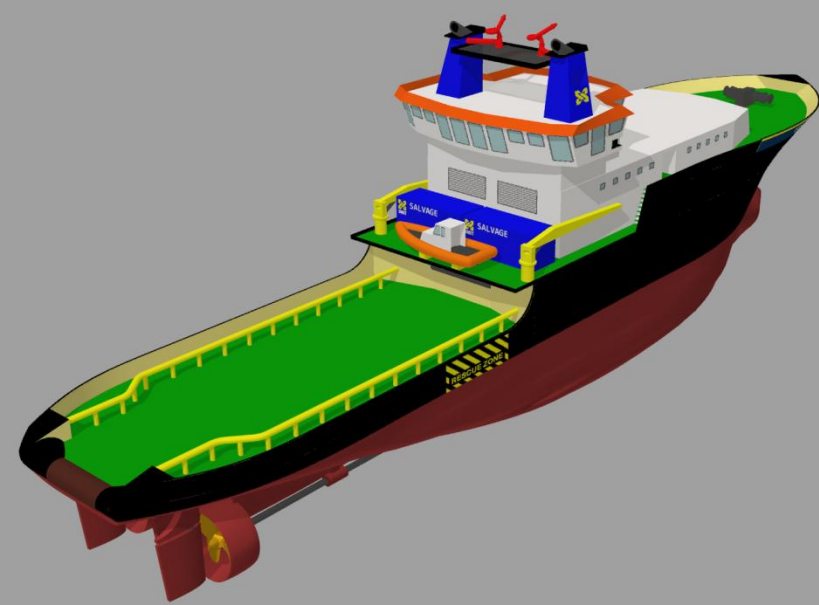
# QUESTOR MODELLING



## 3D MODEL



## WIRE FRAME MODEL



# CONCLUSION

- ❖ 36<sup>th</sup> TTEG – Agreed to the ETV Concept study's findings and recommendations.
- ❖ 36<sup>th</sup> TTEG - Agreed to further look into the legal and liabilities aspects; the different types of ETV services provided in other regions; and propose a suitable model for the SOMS.

*Thank you.*

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