Straits Project 7
Emergency Towing Vessel (ETV) Service in SOMS

5th CF Singapore

Capt. Ram K Kumar
Controller, Marine Environment and Safety Dept
Maritime and Port Authority of Singapore

BACKGROUND

- 34th TTEG - Agreed for a concept study to examine the feasibility and requirements for ETV services in the SOMS.

- 35th 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 4th CF.

- Project awarded to Smit Singapore. Concept study report was presented at the 4th 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

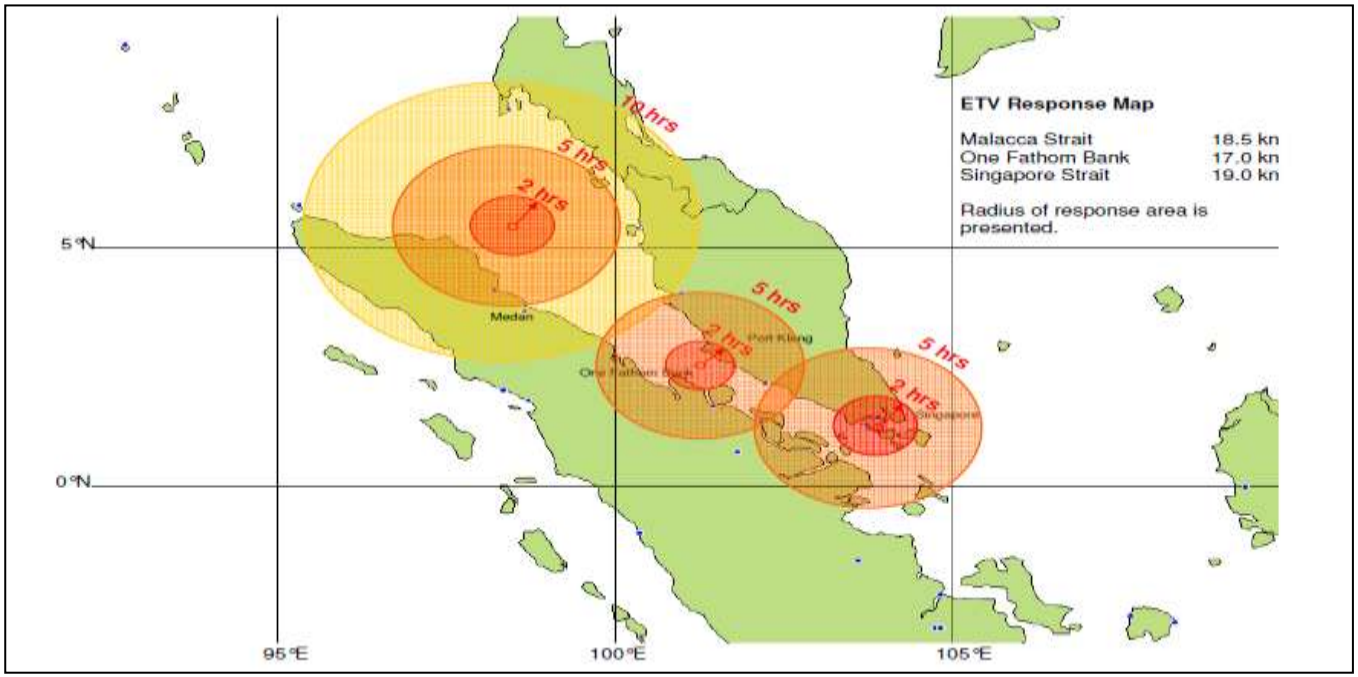
Primary Role

- 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

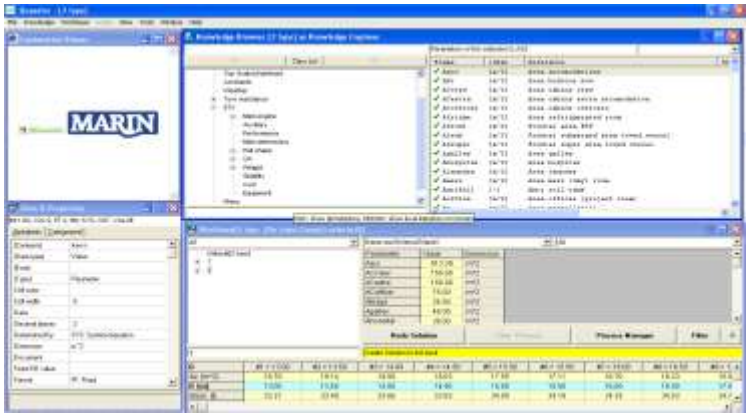
	Malacca Strait ETV 1	One Fathom Bank ETV 2	Singapore Strait ETV 3
L.O.A *(m)*	75.9	71.9	75
Breadth *(m)*	15	15.5	15.5
Draught *(m)*	6.0	5.2	5.7
Nos. Crew	13	13	13
Nos. Supernumerary	10	10	10
Bollard pull *(Tonnes)*	147	105	162
Design Speed *(Knots)*	18.5	17.0	19.0
Endurance *(Days)*	35	25	25
Main engine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

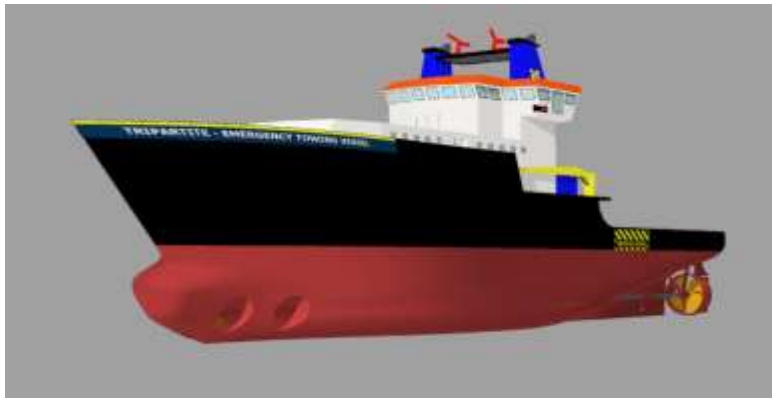
ETV CONCEPT DESIGN

REQUIREMENT

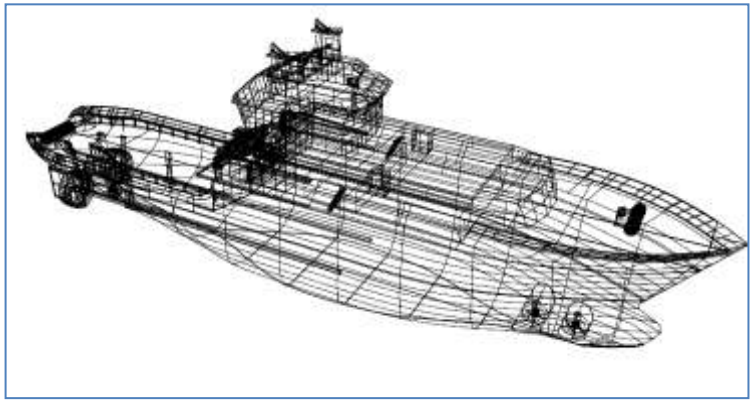
		Malacca Strait: ETV 1	One Fathom bank: ETV 2	Singapore Strait: ETV 3
1	Endurance on economic speed [days]	35	25	25
2	Anti-roll tank [Y/N]	Yes	Yes	Yes
3	Extra Accommodation [No. people]	10	10	10
4	Dynamic positioning [1 / 2 / 3]	DP 1	DP 1	DP 1
5	Fire Fighting [Y/N]	FiFi 1	FiFi 1	FiFi 1
6	Helicopter deck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

QUESTOR MODELLING

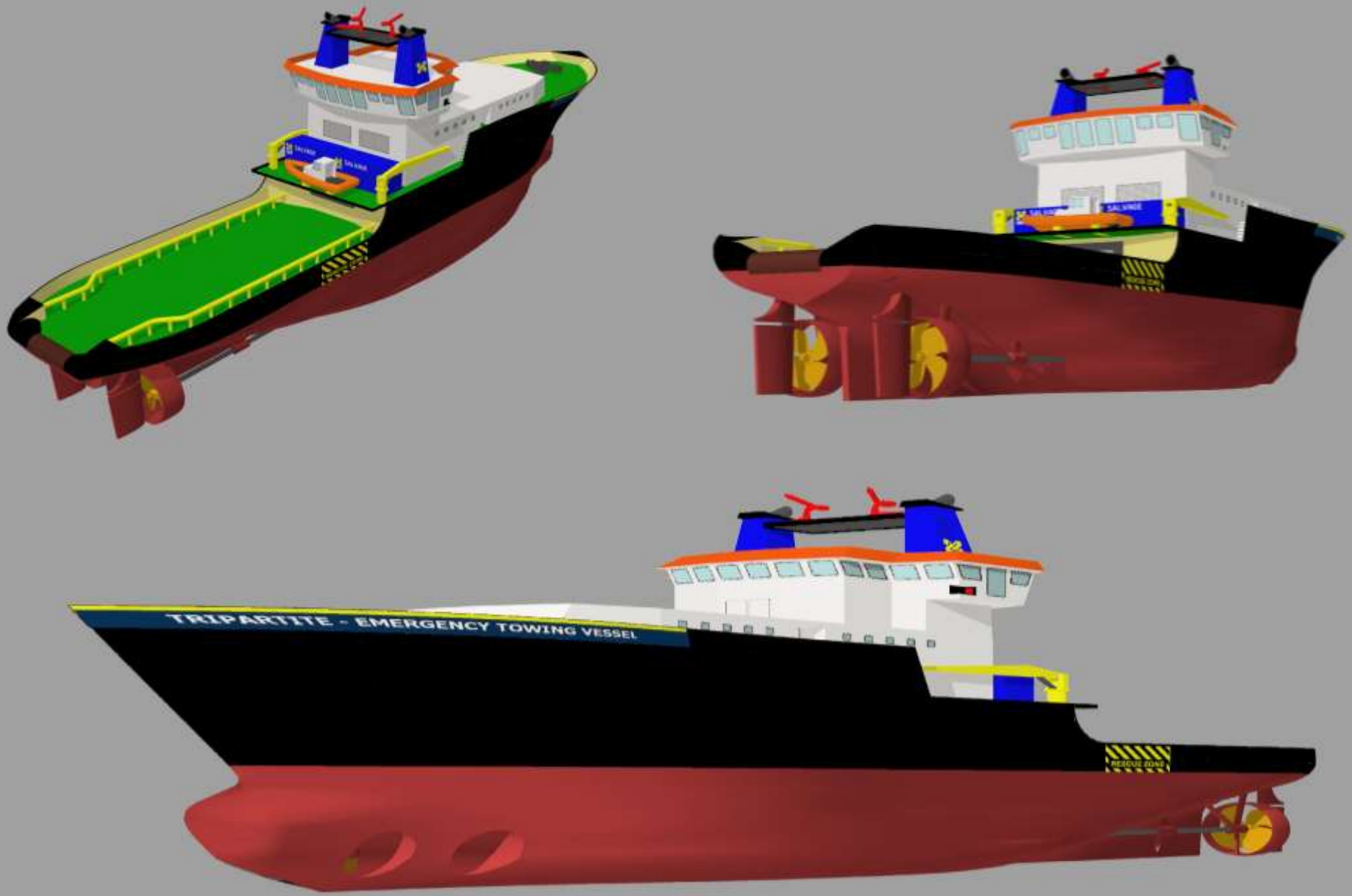




3D MODEL



WIRE FRAME MODEL


TRIPARTITE - EMERGENCY TOWING VESSEL
RESCUE ZONE

CONCLUSION

- 36th TTEG – Agreed to the ETV Concept study's findings and recommendations.

- 36th 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.