



Asset Ownership: Statistical Data On Marine Vessel Utilization



2018 Data Analytics

Presented By

Directorate of Planning, Research and Statistics (PRS)

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Outline



1 Introduction	03
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2 Research Methodology	04
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3 Data Analytics	05
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4 Recommendation	10
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5 Key	15
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Introduction



The NCDMB Research and Statistics Framework has been developed to provide clear procedure for data collection, compilation, analytics, dissemination, utilization and archiving. Pursuant to the approved framework, we present data analytics on marine vessel utilization.

Description of the data is presented below:

1. What to measure: Assets- Vessels deployed in the industry
 - a. Type of vessel
 - b. Category of vessel
 - c. Industry spend on vessel utilisation
 - d. Contract opportunity per operator
2. Data source: NAPIMS
3. Data covered :
 - a. 12 Operating Companies
 - b. Historical 2014-2018
 - c. Forecast 2019-2023
 - d. Collation date- October 2018
4. Limitations of the research:
 - a. Data is only from Joint Venture (JV) operations and Production Sharing Contracts (PSC)
 - b. Data from Marginal field were not included

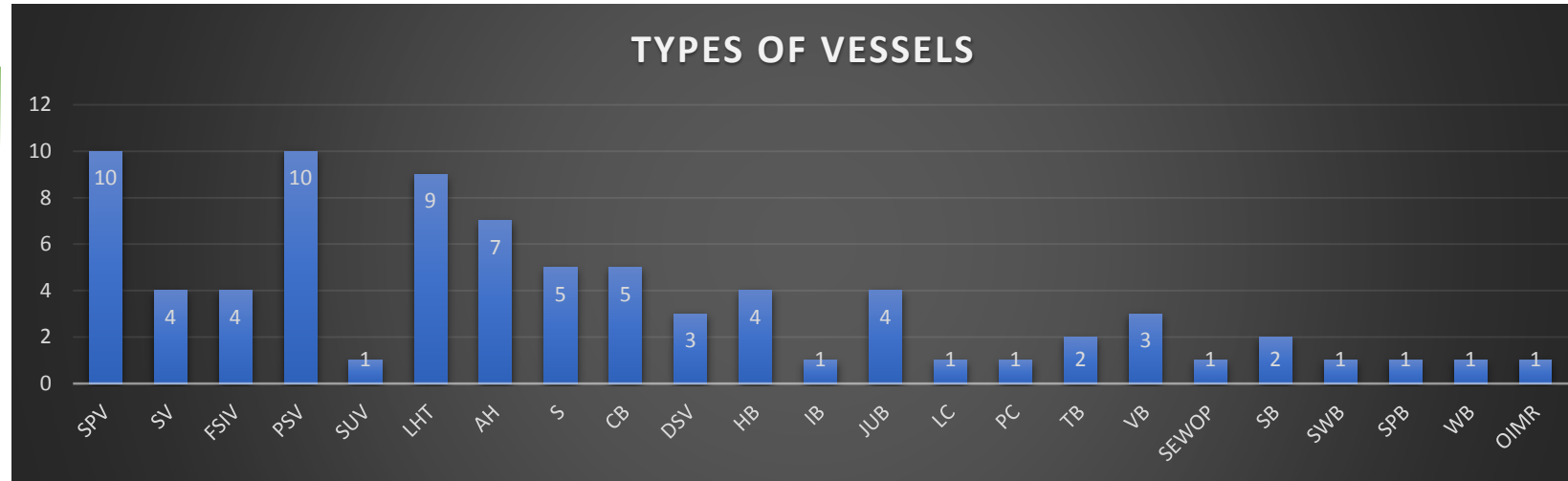
Policy

A policy is described
government, private
"Statement of Intent"
important organization



Marine Vessel Analytics: Types of Vessels

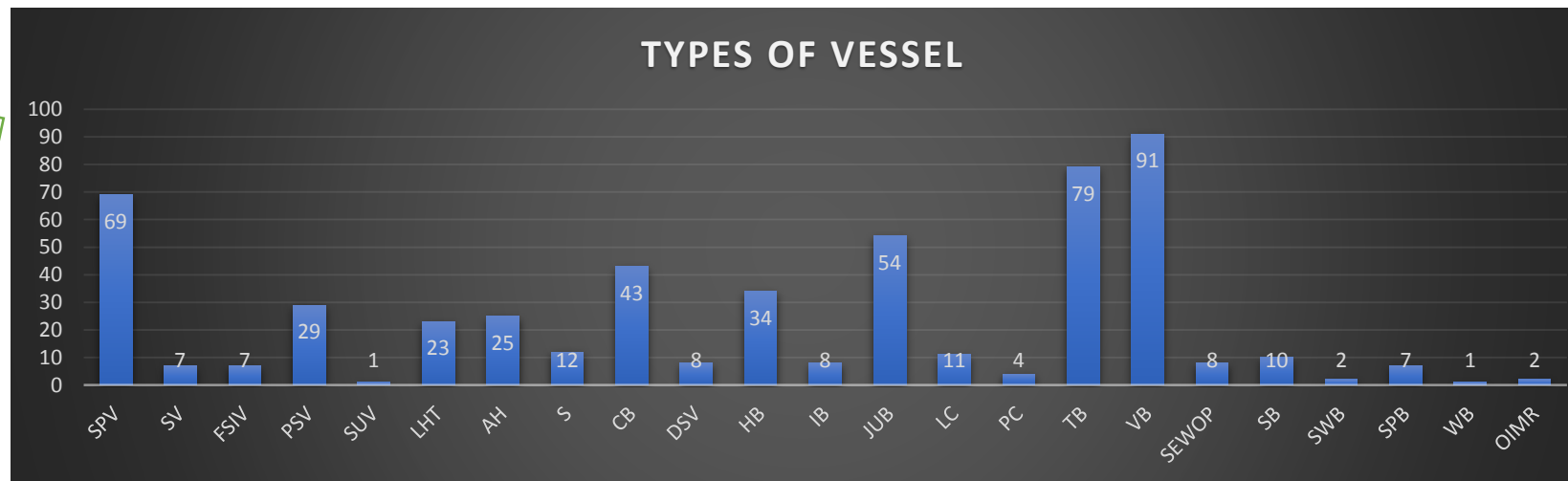
DESCRIPTIVE
2014-2018



Diagnostics

1. Top 5 vessels utilized were Security Patrol Vessels (SPV), Platform Supply Vessels (PSV), Line Handling Tug (LHT), Anchor Handling Tug (AHT), Crew Boats (CB)
2. The 5 vessels accounted for 49% of vessels utilized

PREDICTIVE
2019-2023



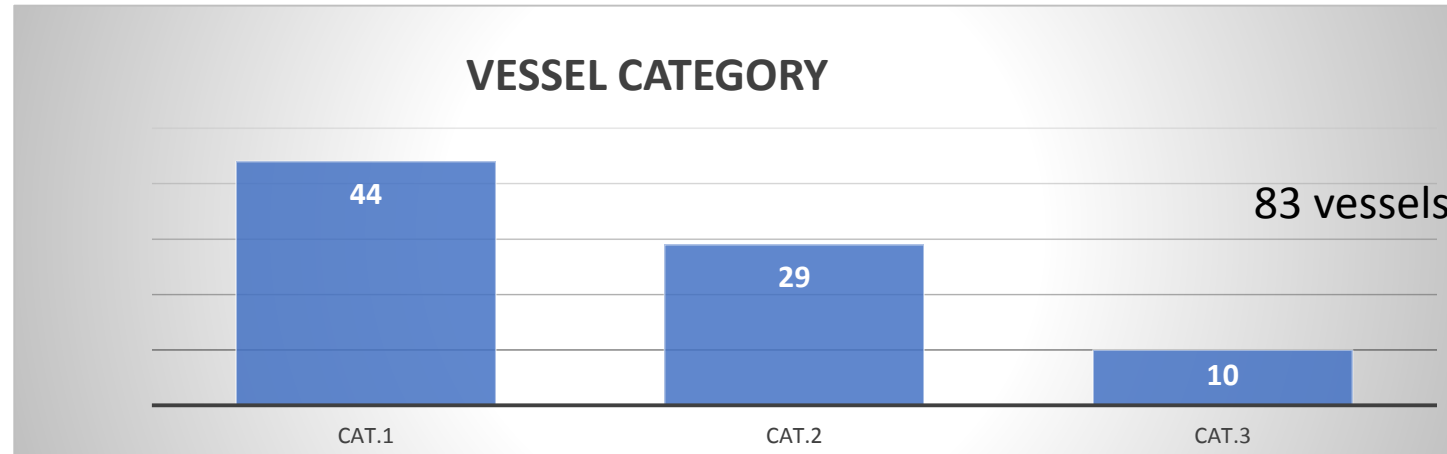
Diagnostics

1. Top 5 in projected demand will be Various barges (VB), Tug Boats (TB), Security Patrol Vessels (SPV), Jack-up barges (JUB) and Crew Boats (CB).
2. The 5 account for 66% of vessels that will be required
3. Water Bus (WB), Support Vessel (SUV) are among the vessels that will be least demanded

Marine Vessel Analytics: Vessel Category



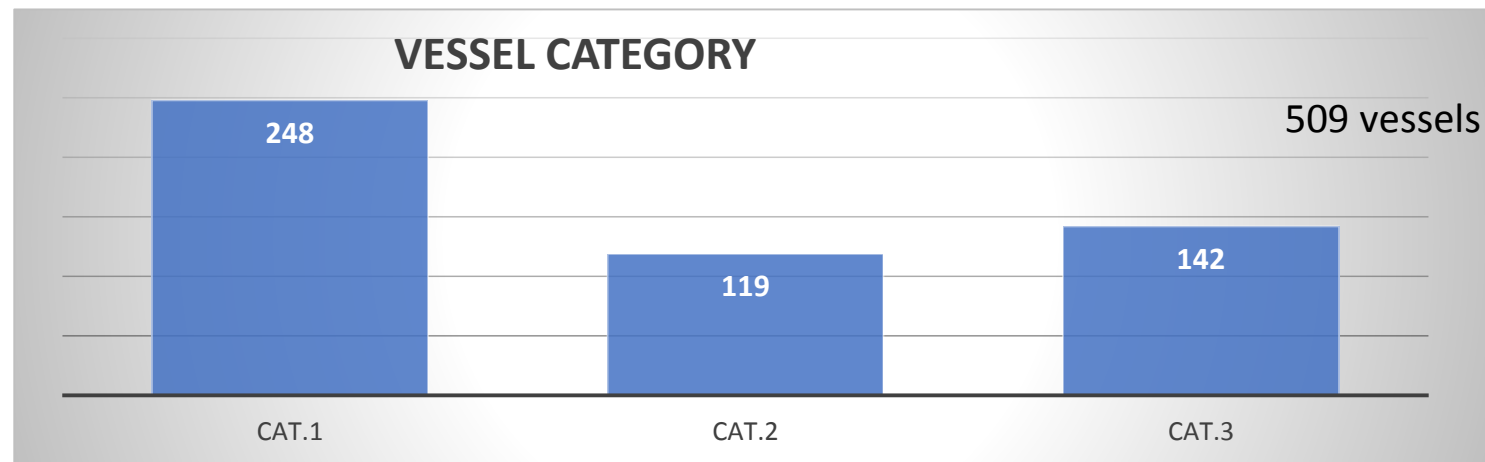
DESCRIPTIVE
2014-2018



Diagnostics

1. Category 1 vessels were more in demand accounting for 53% of vessels utilized
2. Category 2 vessels accounted for 34%
3. Vessels in category 3 accounted for 12% of vessels utilized
4. Vessels in Category 1 and 2 accounted for 87% of vessels utilized in the period 2014-2018

PREDICTIVE
2019-2023



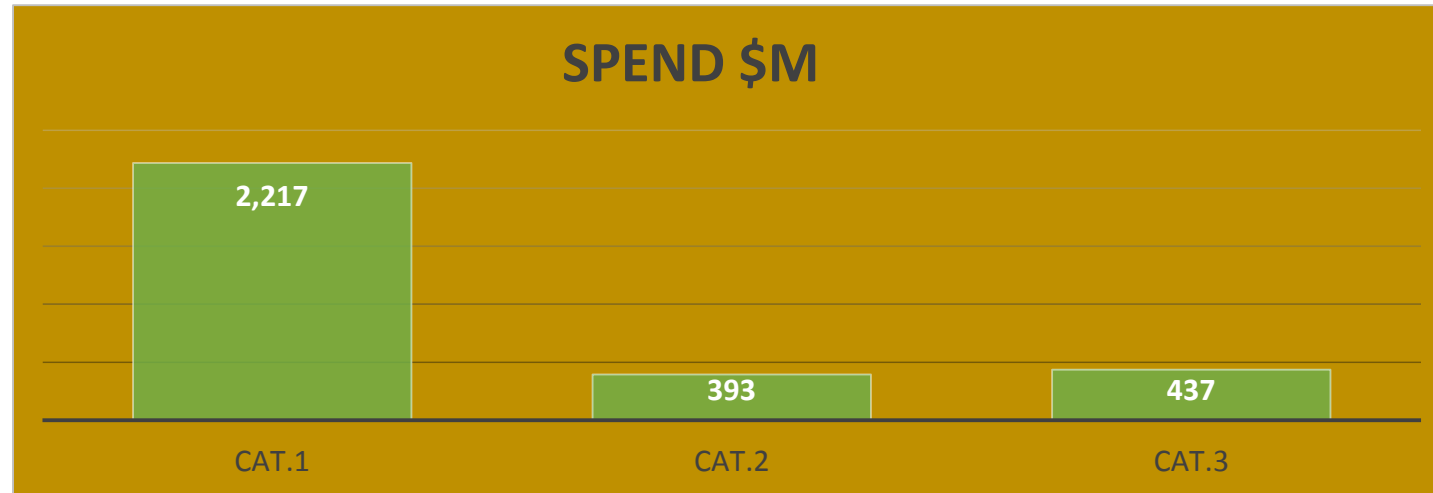
Diagnostics

1. Volume of transaction for Category 1 vessels will be higher (49%), compared to categories 2 (23%) and category 3 (28%)
2. Vessels in Category 1 and 2 account for 72% of vessels that will be in demand over the period 2019-2023

Marine Vessel Analytics: Industry Spend



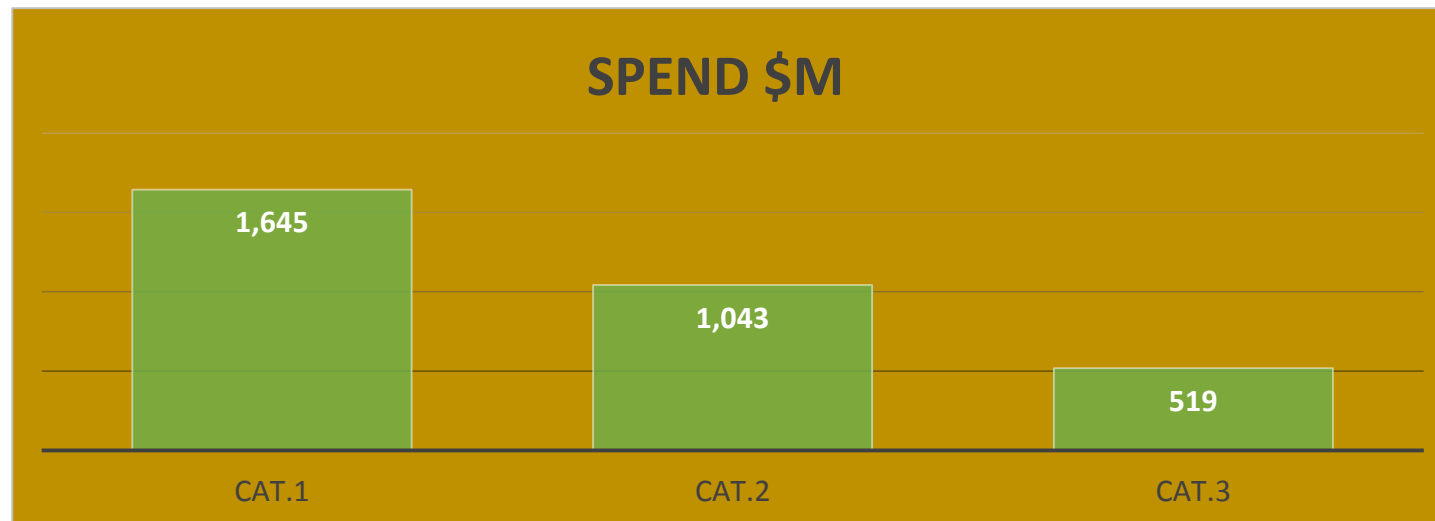
DESCRIPTIVE
2014-2018



Diagnostics

1. Industry spend on marine vessels was \$3.047 Bn over the period 2014-2018
2. Industry spend of \$2.217 Bn on category 1 marine vessels accounted for 73% of total spend on Marine Vessels (MVs) compared to \$393 Mn or 13% for Category 2 and \$437 Mn or 14% for category 3 vessels
3. Category 1 and 2 vessels account for 86% of industry spend

PREDICTIVE
2019-2023



Diagnostics

1. Industry spend on category 1 vessels is projected to be \$1.645 Bn or 51% of total spend compared to \$1.043 Bn or 33% for Category 2 vessels and \$519 Mn or 16% for Category 3 vessels.
2. Category 1 and 2 vessels account for 84% of spend and should be focus for vessel ownership
3. The total spend is projected to be \$3.207 Bn or \$641 Mn per annum

Marine Vessel Analytics: Sources of Contract



DESCRIPTIVE
2014-2018

CONTRACT OPPORTUNITIES-2014-2018



Diagnostics

1. There were 85 JV opportunities with SPDC, CNL and MPNU accounted for 44% of the opportunities
2. SPDC and CNL had 13 contracts each while MPNU awarded 11 contracts

PREDICTIVE
2019-2023

CONTRACT OPPORTUNITIES-2019-2023



Diagnostics

1. SPDC, CNL MPNU will account for 389 or 76% of the contract opportunities
2. SPDC has 188 (37%) of vessel contract opportunities while CNL will be awarding 160 (31%) contracts and MPNU 41 (8%) contracts out of 509 planned contracts
3. The attention of the Board should focus on these two companies for compliance while not losing sight of compliance by other Operators



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Shipyard/ Dockyard

- # national security

Security

-

Jobs

-

Manufactured Goods

- 

Ancillary Services

- Catering Services
- Medicals
- Waste Management



Prescriptive Analytics

Prescriptive analytics will apply the statistical data in recommending policy actions that will assist the Board in meeting its aspirations as it relates to marine vessel utilization in the oil and gas industry.

NCDMB Marine vessel scheme focus on increasing retention of industry spend from marine vessel utilization through the following interventions:

- 1) Promote and sustain growth in indigenous ownership of MV
- 2) Enforce utilisation of Nigerian owned MV
- 3) Increase capacity of local shipyards to build, service & maintain MVs of various sizes
- 4) Develop and maintain healthy pipeline of skilled marine operators and seafarers

Prescriptive Analytics



S/no	Board's aspiration	Policy action	Responsibility	Date
1	Promote and sustain growth in indigenous ownership of MV	Asset acquisition fund under the NCIF should focus on financing acquisition of category 1 and 2 vessels based on proven supply gap deduced from this statistical data	NCDMB NCIF BOI	Continuous
		NCCF shipping and Logistics working group should be mandated to conduct impact assessment of the effect of Temporary Import Permit (TIP) and customs duty on vessel acquisition and recommend appropriate import duty tariff for imported vessel	NCCF shipping and logistics	Q1 2019
		This statistical data should be availed to NIMASA to serve as a guide in structuring and disbursing loans from the Cabotage Vessel Financing Fund (CVFF)	NIMASA	Q4 2018
		This statistical data should be availed to NCCF shipping and logistics working group to serve as a guide in investment in vessel acquisition and shipyard	NCCF shipping and logistics	Q4 2018



Prescriptive Analytics

S/no	Board's aspiration	Policy action	Responsibility	Date
2	Enforce utilization of local content compliant MV by Operators	Ongoing harmonization of NCDMB-NIMASA categorization procedure to be concluded and published	NCDMB- NIMASA committee	Q1 2019
		NNPC should mandate its charterers carrying Nigerian cargo to register their vessels on NCDMB marine vessel categorization platform. The vessels will be categorized and subjected to NC requirements on ownership and manning	NCDMB PCAD & CB	Q1 2019
		Established procedure for obtaining vessel demand data from NAPIMS should be institutionalized as an annual routine	NCDMB RSDD	Q2 2019
		ES NCDMB and GGM NAPIMS should agree to adopt NCDMB categorization report as basis for shortlisting and patronizing vessel owners	NCDMB PCAD	Q1 2019
		NCCF Shipping and logistics committee should conduct study on how current crude oil trade policy where Nigerian cargo is sold on FOB basis is impacting the quest to promote ownership of vessels; and recommend changes in policy to CIF with empirical facts on the potential economic gains	NCCF shipping and Logistics Sectorial Working Group	Q1 2019



Prescriptive Analytics

S/no	Board's aspiration	Policy action	Responsibility	Date
3	Increase capacity of local shipyards to build, service & maintain MVs of various sizes	Current NIMASA shipyard capacity audit should take into consideration the types of vessels in demand within Nigerian waters and develop interventions that will lead to the establishment or upgrade of shipyards with the following attributes: 1. Tier 3 yards –Capacity to fully construct category 1 vessels and maintain other types of vessels 2. Tier 2 yards- capacity to fully construct category 1 vessels, integrate top side of category 2 vessels and maintain other types of vessels 3. Tier 1 yards- capacity to fully construct categories 1 and 2 vessels, integrate top side of category 3 vessels and maintain other types of vessels	NIMASA	Q1 2019
		Vessel maintenance history will continue to be a major criteria in the harmonized NCDMB-NIMASA marine vessel categorization procedure	NCDMB NIMASA	Continuous

Prescriptive Analytics



S/no	Board's aspiration	Policy action	Responsibility	Date
4	Develop and maintain healthy pipeline of skilled marine operators and seafarers	<p>Ongoing framework for Manpower Development for critical skills required in the maritime sector championed by NIMASA under the NCDMB –NIMASA collaboration should consider the following in the scope for upgrade of maritime academies:</p> <ol style="list-style-type: none"> 1. Vessels in Category 1 and 2 account for 72% of vessels that will be in demand over the period 2019-2023 2. Skills audit should focus on manpower needs of category 1 and 2 vessels and short term gap closure interventions should address the specific manning requirements of these vessel categories 3. Medium term gap closure interventions should address the manpower needs of category 3 vessels 	NIMASA	
		<p>Develop an NCDMB HCD programs that address the issue of sea time training. Recommendations in this regard include the following:</p> <ol style="list-style-type: none"> 1. Scope - providing trained seafarers with the requisite 12 month mandatory sea time experience 2. Approach: <ol style="list-style-type: none"> a. Provision of dedicated training vessels for practical on-board sea time experience for cadets, in fulfilment of requirements for obtaining international certification -Certificate of Competence (CoC) b. Put in place a program for upgrade of maritime academies and acceptance of Nigerian Certificate of Competencies (CoCs) c. Provision bed space for cadets dedicated to sea time training 	NCDMB CB /PCAD NIMASA	



Keys: Vessel categorization and Vessel definition

Vessel categorization

Vessel Class/Types on NCDMB Marine Vessel Categorization Reports (available on www.ncdmb.gov.ng)	
Category 1 (Non-Dynamically Positioned DP) <i>Low acquisition cost - <\$50 Million</i> <i>Tenure >2 years</i>	Crew Boat (CWB), Surfer (S), Security Vessel (SCV), Diving Support Vessels (DSV), Fast Supply Intervention Vessel (FSIV), Supply Vessels (SPV), Mooring Launch Vessels (MLV), Shallow Draft Vessels (SDV)
Category 2 - Dynamically Positioned (DPs) and specialized vessels <i>Higher acquisition cost >\$50- 200 Million</i> <i>Tenure >2 years</i>	Accommodation Vessel (ACCV), Platform Supply Vessel (PSV), Anchor Handling Tug Vessel (AHTV), Tug Boat (TUGB), Multi-Purpose Vessel (MTPV), Pipe Lay Barges (PLB)
Category 3 (Short term vessels) <i>Very high acquisition cost >\$ 200 Million</i> <i>Tenure <1 year</i>	Installation barges (INSV), Jack-up barge (JUB), Lift Boats (LFB), Seismic Acquisition vessels (SAV)



Definition of vessels

Crew Boat (CB)-to convey personnel to and fro the platform,

Surfer (S)- this is rides on the forward or deep face of moving wave which usually carries the surfer towards the shore

Security Patrol Vessel (SPV)- also refer to as patrol craft, patrol ship or patrol vessel, it is a relatively naval vessel designed for coastal defense duty

Diving Support Vessels (DSV)- this is use as a floating base for professional diving projects

Fast Supply Intervention Vessel (FSIV)- this is for urgent resupply and transport of response teams. Its versatility enables them to transport and deliver bulky liquids

Landing Craft (LC)- are small and medium seagoing watercrafts such as boats and barges used to convey a landing force from the sea to the shore

Supply Vessels (SV)- this is a ship specially deign to supply offshore oil and gas platforms

Mooring Launch Vessels (MLV)- this is a permanent structure to which a vessel may be secure

Shallow Draft Vessels (SDV)- this is a multi-purpose for harbours, inland and coastal waters with a super shallow

Support vessel(SUV)- are designed for specific purposes such as construction support, subsea support, traditional support, and emergency response service

Definition of vessels



Personnel carrier (PC)- this is used to carry personnel and equipment to and fro the platform

Speed Boat (SB)- A speedboat is a boat that can go very fast because it has a powerful engine

Swamp Buggy (SB)- Swamp buggies may be purpose built, or vehicles modified to deal with the requirements to move around the swamp

Water Bus (WB)-a small boat engaged in the transport of passengers over a regular local route on inland waters in a manner comparable to a bus on land

Accommodation Vessel (ACCV)-are used wherever there is a need for additional accommodation, engineering, construction or storage capacity offshore

Platform Supply Vessel (PSV)- is a type of offshore vessel which is mainly used for transiting essential equipment and additional manpower to reinforce the high seas' operations

Anchor Handling Tug Vessel (AHTV)- are mainly built to handle anchors for oil rigs, tow them to location, and use them to secure the rigs in place

Tug Boat (TB)- are typically use to move vessels that either are restricted in their ability to maneuver on their own, such as ships in a crowded harbor or a narrow canal, or those that cannot move by themselves, such as barges, disabled ships, log rafts, or oil platforms



Definition of vessels

Multi-Purpose Vessel (MTPV)- is a seagoing ship that is built for the carriage of a wide range of cargoes

House Boat (HB)- is a boat that has been designed or modified to be used primarily as a home

Pipe lay Barges (PLB)-is a maritime vessel used in the construction of subsea infrastructure

Line Handling Tug(LHT)-is a critical part of the safe handling of all ships, and safe, compact, capable and highly maneuverable tugs are required

Installation barges (INSV)- this is either custom built or based on standard floating pontoons

Jack-up barge (JUB)- The jackup is maneuvered (self-propelled or by towing) into location with its legs up and the hull floating on the water

Lift Boats (LFB)- are commonly used to perform maintenance on oil and gas well platforms

Seismic Acquisition vessels (SAV)- They are also known as research vessels because in a completely different way, they do help research the oceans and seas

Various Barges (VB)- are used to transport cargo from one area to another through a waterway

Self Elevating Work Platform (SEWOP)- means a work platform that can be self-elevated to overhead work locations and includes all types of aerial devices. means any elevating work platform designed to be self-propelled and controlled from the operator's station on the work platform

Self Propelled Barges (SPB), OIMR Vessel (OIMR)



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