Multi-use and Modular Platforms: Trends in Platform Availability

Presentation to: Meeting Seven: Ocean Exploration Advisory Board
23 February 2017
Texas University; Austin, Texas

Presented by: Aaron Smith, OMSA
Kirt Chouest, Edison Chouest Offshore
History of Offshore Supply Industry.

1723: “As defense, however, is of much more importance than opulence, the act of navigation is, perhaps, the wisest of all the commercial regulations of England” *Adam Smith.*

1789: Congress passes the United State’s first cabotage law.

1920: “It is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels” *Merchant Marine Act of 1920.*

1947: First well drilled off the coast of Louisiana, it is serviced by out-of-work shrimp boats and surplus WWII vessels.

1955: First purpose-built OSV constructed.
History of OMSA and Offshore Supply Industry.

M/V Ebb Tide
History of OMSA and Offshore Supply Industry.

M/V Berm Tide

Betty Lou
History of Offshore Supply Industry.

1956: First jack-up enters service, necessitating stern-to mooring.

1960: First Semi-submersible platform, resulting in the addition of winches and A-frames to OSVs to make anchor handlers.

Mid-1970s: Advent of lateral thrusters enables side-to mooring and “crewboating” or “live boating.”

1970s/80s: Increased use of dive support vessels and emergence of ROV supporting vessels.

Early 1990s: OSVs start to incorporate dynamic positioning systems allowing for improved station-keeping.

2000s: As drilling moves deeper, see 300+ ft, DP-2 become norm.

2009: Emergence of the U.S. Flag IMR vessel.
History of Offshore Supply Industry.
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History of Offshore Supply Industry.
“Best equipped and most suitable types of vessels.”

- Long-term charter,
- Spot charter,
- IDIQ charter-Indefinite delivery/indefinite quantity,
- Long-term charter with option to purchase,
- Bareboat charter-COGO, and/or
- Vessel operating contract-GOCO.
Advantages of Chartering.

• The Contractor assumes the financial risk:
  • Government pays nothing until vessel delivery and acceptance,
  • Termination for convenience clause, and
  • Government is only obligated to the extent funds are available.

• Government reduces perceived performance risk by
  reserving the right to substitute crew with federal
  employees, military personnel, or other contractors if
  prime is unable to perform specified services.

• Costs are fixed and determined in advance (typically up
  to 5 years), which allows for more efficient budgeting.
Advantages of Chartering (Continued).

- Increased vessel utilization.
- Chartering inherently allows the Government to improve vessel capabilities, upgrade equipment, revise the statement of work, or simply require a newer, more efficient vessel on a more frequent basis at little or no additional cost.
- Allows for more innovation.
- Increases cost efficiency:
  - Charter includes all operations and maintenance costs, overhauls and dry-docking costs, and
  - Best value to the Government based on competition
Hornbeck Offshore Services Examples.
Hornbeck Offshore Services Examples.
Hornbeck Offshore Services Examples.
M/V Laney Chouest.
M/V Dolores Chouest and DSV Turtle.
M/V Carolyn Chouest.
M/V Kellie Chouest.
Offshore Petroleum Discharge System.
RVIB Laurence M. Gould.
Tractor Tugs.
M/V C-Champion.
Supporting Research.

**Analysis of Maritime Support Vessels and Acquisition Methods Utilized to Support Maritime Irregular Warfare**

June, 2010

MBA Professional Report, Naval Postgraduate School

By: William Clark, Christopher Kelley, and Justin Bumbara

Advisors: Keenan Yoho and James Greene

Report posed the following questions:

- Are leased/chartered ships meeting the requirements to support MIW?
- What is the most appropriate mechanism for acquiring vessels to support MIW?
Supporting Research.

<table>
<thead>
<tr>
<th></th>
<th>LCS-1</th>
<th>HSV-2</th>
<th>C-Champion</th>
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<tbody>
<tr>
<td>Unit Cost</td>
<td>$480,000,000</td>
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<tr>
<td>Baseline Lease cost</td>
<td></td>
<td>$18,250,000</td>
<td>$7,569,000</td>
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<tr>
<td>Operating and Support Costs</td>
<td>$61,700,000</td>
<td>$26,845,000</td>
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<td>Cost per day</td>
<td>$221,644</td>
<td>$123,548</td>
<td>$27,827.40</td>
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</tbody>
</table>

Source: Clark, Kelley, Bummarra
“Analysis of Maritime Support Vessels and Acquisition Methods Utilized to Support Maritime Irregular Warfare”
“As the defense budget becomes more constrained, all viable options to pursue needed technologies or platforms should be available.”

“Because of the cost advantage of the MV C-Champion, two or three of these vessels could be deployed in an operational area at the same cost per day or less as an HSV or LCS; therefore, ameliorating the disadvantage of being slowest to arrive at a scene of action.”

Source: Clark, Kelley, Bummara
“Analysis of Maritime Support Vessels and Acquisition Methods Utilized to Support Maritime Irregular Warfare”
“Leasing or chartering offers far more flexibility in highly dynamic operational environments since option years can be exercised at the discretion of the lessor. The flexibility of exercising a future option allows the lessor to find the best vessel to meet current end-user requirements. Whereas vessel procurement incurs a likely 30-year obligation to support, maintain and utilize a vessel and limits the capacity to adapt to changing end-user requirements.”

Source: Clark, Kelley, Bummar
“Analysis of Maritime Support Vessels and Acquisition Methods Utilized to Support Maritime Irregular Warfare”
Thank you.

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