Maritime Security Challenges 2018
Panel III – The Future Fleet
Building Balanced Fleets: Nexus Between Capability, Capacity and Readiness

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## Skyrocketing Warship Costs

<table>
<thead>
<tr>
<th>Destroyer Class</th>
<th>Year</th>
<th>Unit Cost (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles F. Adams</td>
<td>1958</td>
<td>200 million</td>
</tr>
<tr>
<td>Kidd</td>
<td>1978</td>
<td>325 million</td>
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<tr>
<td>Arleigh Burke Flight IIA</td>
<td>2015</td>
<td>1.84 billion</td>
</tr>
<tr>
<td>Zumwalt</td>
<td>2016</td>
<td>3.96 billion</td>
</tr>
</tbody>
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Asymmetric Countermeasures

MM-38 Exocet
1973
US$200,000

MM-40 Exocet
1993
US$3.4 million
Capability

- Quality of the forces based on:
  1. Age of platform
  2. Level of modernity
  3. Feasibility of follow-on modernization
- Individual platform vs. overall force structure
- Relative, not absolute, measure
- How these assets fit into operational concepts tailored for specific scenarios
Capacity

• Usually measured in number of vessels
• Holistically, should also be considered as the size of the force composed of vessels directly related to its specific missions, as well as manpower availability
• Difference in how to define capacity since different navies may count the vessels in different ways
National Interests – The Starting Point

• No one-size-fits-all approach

• National interests
  1. Local
  2. Regional
  3. Global

• National interests constitute an ever-evolving interplay of domestic and external interests, which are prioritized and translated into specific strategies that determine the mission and procurement priorities of navies
Notwithstanding their fleet capacity limitations, Bangladesh and Indonesia routinely deploy a warship each to the UNIFIL Maritime
Building Future Fleets

• Due to funding uncertainties in the foreseeable future, new vessels are expected to possess:
  1. Longer service lifespans
  2. Multifunctionality
  3. High levels of automation
  4. Modularity and “plug and play” features
  5. Room for future modernization and upgrades

• One-for-one replacement of vessels has become increasingly a rarity
# Shrinking Fleet, Larger Vessels – The PLA Navy Example

<table>
<thead>
<tr>
<th></th>
<th>1987</th>
<th>1997</th>
<th>2007</th>
<th>2017</th>
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<tbody>
<tr>
<td><strong>Principal Surface Combatants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&gt;3000 tons</td>
<td>16</td>
<td>18</td>
<td>31</td>
<td>57</td>
</tr>
<tr>
<td>&lt;3000 tons</td>
<td>37</td>
<td>35</td>
<td>44</td>
<td>26</td>
</tr>
<tr>
<td><strong>Patrol and Coastal Combatants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;1000 tons</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>&lt;1000 tons</td>
<td>850</td>
<td>747</td>
<td>233</td>
<td>169</td>
</tr>
</tbody>
</table>

Source: IISS *Military Balance*
Coastal and Patrol Combatants of the Cold War till 1990s

Type-022 Houbei

Type-056/56A Jiangdao (1300 tons)
Other Measures: Self-Help

- Divestment of assets and task-shedding
- Streamlining of forces and missions
- Relegation of responsibilities to MLE agencies
- Whole-of-government approach involving entire maritime community
- Investments in force multipliers – e.g. C4ISR and networked capabilities
- Cost-cutting in administration and logistics, e.g. energy efficiency measures, alternative fuel sources
Another Solution: Cooperation
More Than Just a Simple Purchase of Hardware
Beyond Capability and Capacity

• Deploying assets to meet operational demands vs. keeping assets in port for essential maintain, repair and overhaul (MRO) services and crew rehabilitation

• Readiness includes
  1. MRO
  2. Requisite supporting infrastructure
  3. Personnel training and proficiency

• Last but not least, it’s still about sustained funding
Thank you!