

CSC: The Single Class Combatant Solution



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Director Naval Strategy



- Introduction
- Why is Canada pursuing a single class of surface combatants?
- Three principal factors to consider
- Questions

Why is Canada pursuing a single class of surface combatants?



- Several allies are operating and developing multiple classes of surface combatants
- Original CSC project vision was two variants based on a common hull design
- Three principal factors:
 - Unique naval requirements for Canada
 - Optimized effectiveness and cost efficiencies
 - Innovative approach now feasible due to technological developments

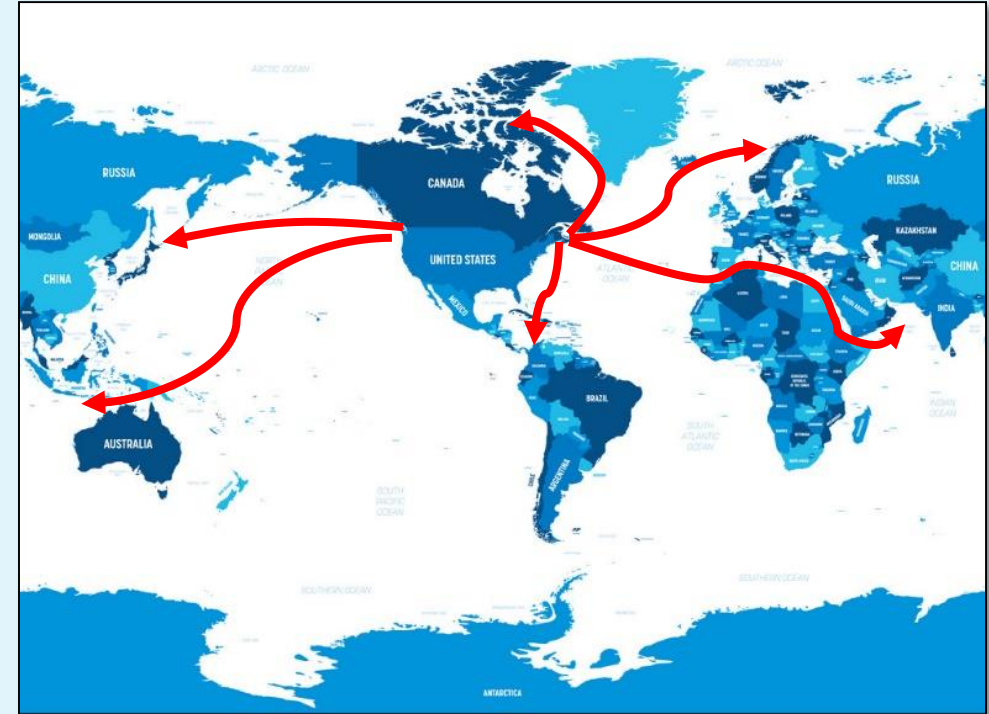


- Naval force planning decisions are made in consideration of a navy's overall fleet mix and the intended military roles for each class
 - Capital Ships
 - 'High-end' surface combatants
 - 'Low-end' surface combatants
 - Submarines
- Previous technological limitations made a true 'general purpose warship' difficult to achieve
- This has historically driven navies towards multiple classes of specialized warships

Unique Naval Requirements of Canada

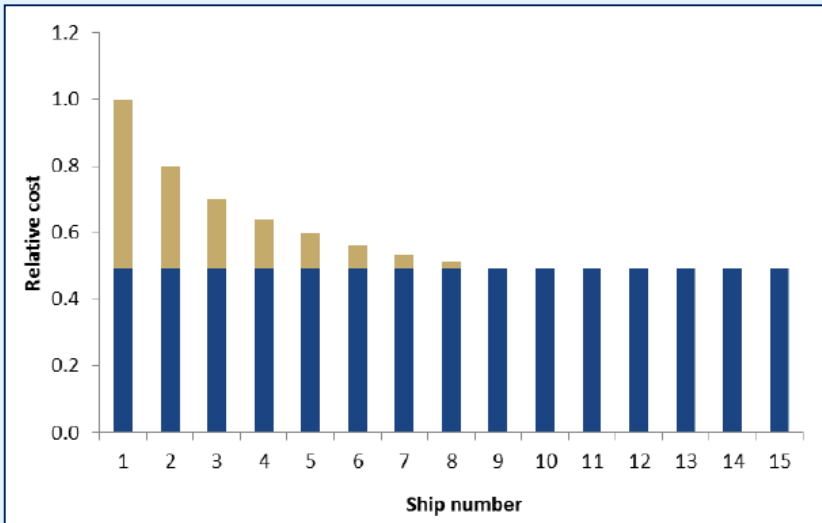


- Geography
 - Canadian homeports
 - Tri-coastal areas of responsibility
 - Anticipated operational theatres
 - Long distances
- Fleet Size: Limited/Modest
- Operating Requirements to achieve *Operational Availability and Agility*
 - Be ready to deploy
 - Be deployable from either coast
 - Remain deployed while performing multiple roles





- A single class of ships
 - Eliminates duplication of fixed program costs and additional costs from re-tooling and pausing work in shipyards
 - Facilitates better shipbuilding learning curves and lower costs per unit compared to two shorter construction runs
 - Allows for the development of dedicated supply chains, common parts, labour specialization, efficient repair training and use of repair facilities and equipment
 - Reduced training costs, deeper knowledge development, and better crew availability



A technologically enabled solution



- Convergence
- Digitization
- Multi-functionality
- CSC Mission Bay + Containerized payloads
- Capacity vs capability
- Software development
- Data analytics



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- Unique Canadian geographical and operational requirements
- Maximizing overall effectiveness while seeking cost efficiencies
- Innovation edge
- Multi-role capability
- Strategic agility





For more information on the the CSC project:
<http://www.navy-marine.forces.gc.ca/en/fleet-units/csc-home.page>

For more on the Single Class Surface Combatant solution discussed here, see:
<https://www.usni.org/magazines/proceedings/2020/november/future-canadian-surface-combatant> (USNI membership required)

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