

**Canadian Defence Policy Review Roundtable  
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I wish to thank the Minister of National Defence and all those who supported my invitation to participate in this Defence Policy Review Roundtable.

My intention this morning is to focus on maritime policy and highlight some issues that I believe need to be addressed by this version of our defence policy review. My professional experience is unique having served 39 years in the Canadian navy and 20 more in the shipbuilding and industrial marine sectors.

In 2012, the Prime Minister made a comment about Canada's economy floating on salt water. During the PM's tenure he was accused of stretching the truth on several issues but on this one he was correct, but was not taken seriously.

The Canadian Forces have three pillars of security that they must undertake, defend Canada, assist in the defence of North America and contribute to international peace and security. These are motherhood statements that are unlikely to change but there are varying degrees of pressure in each of these areas.

Since the First Gulf War, Canada's Navy has spent a significant amount of time out of its traditional operating areas. This can be expected to continue. Some of the issues that need to be factored into our defence policy are:

- The U.S. is broke. Their debt is 19 billion at present and expected to balloon to 21 billion in the next several months; As a consequence its power will decline. The next president is likely to call on all NATO members to meet their military obligations.
- Russia is likely to collapse under the weight of out of control military spending partly due to their recent extension into the Middle East and Eastern Europe.
- Germany is experiencing internal economic and social problems due to the influx of immigrants from the Middle East.
- Poland is likely to emerge as one of Europe's leaders.
- China's economic and domestic problems are seen as long term issues
- and Japan will most likely become Asia's rising naval power.

The economic world as we know it has been changing and the focus has been shifting to the Asia-Pacific region. The USN has officially pivoted to that region to counter the military growth of China.

Some 90% of the globe's cargo will continue to be transported by ship. The ships are getting bigger. The latest to be put in service is 1,300 feet in length and can load 1,800

twenty-foot equivalent units of cargo. This ship coming into service is too large to transit the latest iteration of the Panama Canal completed this week.

These mega ships are limited and extremely restricted in their docking ability and locations! In North America the only facility presently able to accommodate is Long Beach, California.

Despite the limitations these monsters are greatly desired and being churned out, seemingly putting the demanding cart before the oft-maligned horse.

The Atlantic Ocean will continue to be the superhighway for Canada, America and NATO countries to the volatile Middle East and the economically booming Asia-Pacific region. As a result Asian countries, particularly their navies are growing and arming.

The rise of robotics in manufacturing is forecast to mark the fall of globalization, as we know it. Producing widgets in underdeveloped countries with cheap labour is most likely to be replaced by software programmed robots that will eliminate the advantage of low waged workers and the associated transportation costs. Robots in the labour force of the future do not demand a minimum \$15.00 an hour, in fact, they do not demand anything.

The development of hypersonic missiles will be the proverbial game changer in all areas of strike warfare. These missiles will travel at 5-times the speed of sound and are likely to render current missile defence systems ineffective. We can expect operational prototypes in the U.S. by 2020 and Russia and China shortly thereafter. North Korea and Iran are sounding war drums, while the world listens and does little.

Canada has an immediate issue with our arctic dimension. We need to stop paying lip service to this region of our country and its peoples. The CCG and shipping companies such as "Fednav" are our Maritime arctic experts and we need to incorporate their expertise into a coherent arctic strategy. They must have responsibilities commensurate with their expertise, why are we not pushing them to the forefront? There is urgency to this as the US, the Russians and the Chinese have firm ideas about their participation in this region.

Submarines will play a continued significant role in Maritime warfare. Eighteen nations are growing their submarine fleets at this moment. Submarines are not yesterday's news in these nations. Unfortunately, Canada is not going to play a significant role in this game as submarines are not on any proposed ship acquisition plan at this time. They are arguably the best fighting ship in the navy's arsenal. What other vessel can go on patrol for several months and never be seen or heard. They are the ultimate stealth weapons system. One of the cost drivers in ship operations is crew size. For example, the number of crew in four Windsor class submarines is less than the personnel count in one Canadian Patrol Frigate. Armed with the correct missiles, submarines can support troops ashore and provide intelligence to friendly forces. Modern torpedoes allow submarines to engage warships of any size. Submarines are the maritime equivalent to small highly trained special operations forces. They need serious consideration by Canada.

