

# National Shipbuilding Procurement Strategy

## Human Capital & the NSPS

### Maritime Security Workshop Series



Centre for Foreign Policy Studies  
14 November 2014  
Dalhousie University  
Halifax, Nova Scotia  
Canada

## Centre for Foreign Policy Studies

Since the creation of the Centre at Dalhousie University in 1971, it has grown into an internationally recognized institute for the study of maritime security, defence and oceans policy, as well as Canadian and comparative foreign, security, defence and development policy. The Centre has a broad selection of Fellows who test theories, challenge assumptions and build knowledge through their teaching and research and by acting as subject matter experts for policy-makers and decision-makers.

Through its home at the Department of Political Science, the Centre's associated Faculty members offer a range of courses related to Faculty and Fellow research interests. It is the intention of the Centre to be a Venue of Excellence on the issue of procurement in the coming years and to sustain its tradition of scholarship and research. It will continue to host workshops and conferences on the National Shipbuilding and Procurement Strategy (NSPS) challenges and opportunities.

The Centre for Foreign Policy Studies is the institutional home of *Canadian Naval Review* and BroadSides CNR's online discussion forum. The Centre also hosts The Roméo Dallaire Child Soldiers Initiative.

### Centre for Foreign Policy Studies

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## Workshop Intent

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Given that personnel costs are exceeding over 50% of the budgets of most military organizations, it is vital that we take a more comprehensive look at the human resource issues associated with the NSPS. Research to date on this issue suggests that there is significant risk associated with the personnel aspects of the NSPS, particularly given the planned shift to a long-term and virtually continuous building approach to national shipbuilding. The key challenge will be to ensure that the right quality and quantity of personnel will be available over the next 30+ years to meet the needs of the NSPS.

The purpose of this workshop is to bring together invited representatives from Canadian and international industries, academia and the federal and provincial governments, including the Royal Canadian Navy and international navies, to identify, discuss and share their perspectives on the potential challenges and issues concerning the human capital dimension of the NSPS.

Chatham House rules will be in effect. Media will not be invited but follow-on academic research and articles emanating from the discussions will be produced, with non-attribution in effect per the Chatham House rules.

## National Shipbuilding Procurement Strategy Human Capital & the NSPS

Friday, 14 November 2014 0730 - 1800  
Location: 6300 Coburg Rd., University Hall, MacDonald Building

**0730 - 0800** *Registration & Continental Breakfast*

**0800 - 0815** *Introduction & Welcome*

**0815 - 0915** **Panel 1: Building Human Capital - Skills Development**

Chair: **Professor Ken Hansen**, CFPS Fellow

In this panel government officials, representatives from academic institutions and training experts will discuss how they can contribute to the development of the labour force necessary to undertake the demands of shipbuilding.

**Dr. Ronald Pelot** - Industrial Engineering and Associate Scientific Director, MEOPAR, Dalhousie University

**John Somers** - Senior Executive Director, Labour and Advanced Education, Province of Nova Scotia

**Rosaline Penfound** - Vice-President, Academic, Nova Scotia Community College

**Roddy Warnock** - Senior Instructional Designer, Bluedrop Performance Learning

**0915 - 1000** **Moderated Q&A Session for First Panel**

**1000 - 1010** **First Session Wrap Up**

**1010 - 1030** *Coffee break*

**1030 - 1130** **Panel 2: Maritime Crewing Concepts - New Trends**

Chair: **Commodore (Ret'd) Dr. Eric Lerhe**, CFPS Fellow

This panel will explore novel approaches that navies and ship designers are undertaking to optimize the crewing of their fleets and how these concepts may influence the ship designs for the new classes of government fleets under the NSPS.

**Dr. Renee Chow** - Defence Research and Development Canada

**Bernd Kulmus** - Proposal Manager CSC, ThyssenKrupp Marine Systems of Germany

**Nelly Chouvy** - Defence Scientist, Directorate General of Armaments, France

**1130 - 1215 Moderated Q&A Session for Second Panel**

**1215 - 1230 Second Session Wrap Up**

**1230 - 1330 Lunch**

**1330 - 1430 Panel 3: Sustaining Human Capital**

Chair: **Dr. Dan Middlemiss**, CFPS Fellow

In this panel representatives from industry will examine the issues associated with building and retaining the 30+ year workforce necessary to complete the shipbuilding envisaged in the NSPS.

**Brian McCarthy** - VP Human Resources, Irving Shipbuilding Inc.

**Duff Montgomerie** - Deputy Minister, Labour and Advanced Education Province of Nova Scotia

**VAdm (Ret'd) Peter Cairns** - Shipbuilding Association of Canada

**Ken Hansen** - Centre for Foreign Policy Studies

**1430 - 1450 Coffee break**

**1450 - 1535 Moderated Q&A Session for Third Panel**

**1535 - 1550 Third Session Wrap Up**

**1550 - 1610 Workshop Closing Remarks**

**1615 - 1800 Workshop Closing Reception**

Location: Dalhousie University Club

## **NSPS Part II - Biographies:**

**Vice-Admiral Peter Cairns** (RCN, Retired) is the President of the Shipbuilding Association of Canada, as well as Director of Business Development in the Aviation Services Division of SPAR Aerospace. VAdm. Cairns retired from the Canadian Navy in 1994 after 37 years of service, during which he commanded the navy and the navy's Pacific Fleet. He is a qualified submariner and his commands include one submarine, a submarine squadron, two frigates, and a frigate squadron. VAdm. Cairns' international experience includes serving as Assistant Chief of Staff Operations to the Supreme Allied Commander Atlantic in Norfolk, Virginia, and tours with the US Navy, the Royal Navy, and NATO's maritime staff. VAdm. Cairns is a graduate of the US Naval War College, a member of the Naval Officers Association of Canada, and a Senior Research Fellow with the Canadian Institute of Strategic Studies.

**Nelly Chouvy** entered the French Ministry of Defence (DGA) as a Human Factors Engineer in 2002. She has been working for many years on military shipbuilding programs on the topic of crewing. She actively participated in research that was designed to place humans at the centre of the design when optimizing warship crew size. This has become a major research topic for the French Navy since the beginning of the 21<sup>st</sup> century. Her research was relied upon heavily during the design and eventual contracting of the build for the French FREMM class frigates.

**Renee Chow** received a MS in industrial and systems engineering from the Ohio State University in 2000, and a PhD in mechanical and industrial engineering from the University of Toronto in 2005, specializing in human factors engineering. She joined DRDC Toronto as a Defence Scientist in 2004, and is a member of the Human Systems Integration section. Her research interests include cognitive work analysis, computer-supported collaborative work, and human systems modelling and simulation. Her current projects address navy crew generation analysis, critical control spaces for naval platforms, impact of automation on navy crewing, and joint command and control and intelligence. Dr. Chow is also an Adjunct Assistant Professor in the Department of Systems Design Engineering at the University of Waterloo, and has taught undergraduate and graduate level courses in the design of human interfaces for complex systems.

**Ken Hansen** was the Military Co-Chair of the Maritime Studies Programme at

Canadian Forces College in Toronto before holding the Naval Defence Fellowship at Dalhousie. Retired from the navy in 2009, he joined CFPS as a Resident Research Fellow and lecturer before appointment as Adjunct Professor in Graduate Studies (Department of Political Science) in 2013. Ken is a member of the Science Advisory Committee for International Oceans Research Enterprise, a member of the Security Affairs Committee for the Royal United Services Institute, a member of the Editorial Board for *Canadian Naval Review* and the moderator for *Broadsides*, the online discussion forum of the journal. His research includes joint and interagency maritime security theory and doctrine, planning processes and logistical requirements. He received numerous naval service and literary awards, plus a Commendation from the City of Edmonton Police Department.

**Bernd Kulmus** is Proposal Manager at ThyssenKrupp Marine Systems GmbH. After graduating from high school, he enlisted in the German Navy, first as a draftee, and later as a career officer. He holds a Masters degree in electrical engineering from the University of the Federal Armed Forces in Munich. After graduating from university in 1990, he joined an air warfare destroyer as an operations officer and subsequently served as an electronic warfare officer. In 1998 he joined Blohm + Voss shipbuilders as a systems engineering manager, and then as the deputy project manager of the F124 project and proposal manager. During the proposal phase of F125 in 2005, he was involved in establishing the concepts that apply for F125.

**Commodore Eric Lerhe** (RCN, Retired) joined the Canadian Forces in 1967 and was commissioned in 1972. From 1973 until 1983 he served on the HMCS *Restigouche*, *Yukon*, *Fraser* and *Annapolis*. He was promoted to Commander on 1 January 1986, and assumed command of HMCS *Nipigon* in September 1987 and then HMCS *Saguenay* on 6 January 1989. During the 1990s he served as Director Maritime Force Development and Director NATO Policy in NDHQ. He earned his MA at Dalhousie in 1996 and was promoted to Commodore and appointed Commander Canadian Fleet Pacific in January 2001. Commodore Lerhe retired from the CF in September 2003 and commenced his doctoral studies at Dalhousie. His dissertation was published by the Centre for Foreign Policy Studies as *At What Cost Sovereignty? Canada-US Military Interoperability in the War on Terror*. His other interests are defence policy, NATO, the three-dimensional approach, and general naval issues.

As Vice-President of Human Resources at Irving Shipbuilding, **Brian McCarthy** is responsible for the systems, processes and programs that support the company's growing workforce. Much of his focus in the immediate future will be on the strategic growth and development of the Irving Shipbuilding team as it moves into the production phases for Canada's next naval combat ships as well as firmly establishing the company as a global shipbuilding employer of choice. Brian joined Irving Shipbuilding in 2012, relocating from Houston, Texas, where he held the position of Executive Director, Human Resources for Sysco, North America's largest distributor of food service products. Brian had been with Sysco since 2005 and brought to Irving Shipbuilding his experience in HR strategy, operations, systems and programs as well as leading a team that supported more than 75 operating companies across the US and Canada. No stranger to the Maritimes, Brian served as Human Resources Manager for Kent Building Supplies in Saint John, NB, from 2001 to 2005, and prior to that worked with both the Atlantic Health Sciences Corporation and the City of Saint John. Brian is a graduate of Saint Mary's University and also has a Masters of Business Administration from McGill.

**Danford W. Middlemiss**, was educated at the University of Toronto (BA: 1967; MA: 1968; PhD: 1976). From 1973 to 1976 he was engaged in Canadian maritime enforcement studies with the Institute of International Relations at the University of British Columbia. From 1976 to 1981 he was Director of the Centre for Strategic Studies at the University of Alberta. Since 1981, he has been with the Department of Political Science, Dalhousie University, and attained the rank of Full Professor in 1993. From 1987 to 1993, and again from 2005 to 2008 he served as the Director of the Centre for Foreign Policy Studies at Dalhousie University. Today he serves as a Senior Research Fellow at the CFPS and is member of the Editorial Board of the *Canadian Naval Review*.

**Duff Montgomerie** was appointed Deputy Minister of the Nova Scotia Department of Labour and Advanced Education on 28 April 2014. Prior to this appointment Mr. Montgomerie had been Deputy Minister of Natural Resources since January 2011 and before that he served as Deputy Minister of Health Promotion and Protection, March 2007 - January 2011, where he previously served as the department's Assistant Deputy Minister. Mr. Montgomerie was also one of the co-chairs of the Federal/Provincial/Territorial Conference of Health Deputies and co-chair of the Federal/

Provincial/Territorial Conference of Physical Activity Sport and Recreation Deputies. For the last number of years, he has also been a steering committee member of the Reforming States Group sponsored by the Millbank Memorial Fund. Mr. Montgomerie has also served as the Executive Director of the Nova Scotia Sport and Recreation Commission, was the first full-time Director of the Nova Scotia School Athletic Federation and was a member of the Canada Games Council Board of Directors. In addition to his significant provincial government experience, he has worked with the Central Nova Tourism Association and been in the real estate business. He has a Physical Education Diploma from the Nova Scotia Teachers College and began his career as a physical education teacher in his native Bridgetown in the Annapolis Valley. He remains active in the sports world as a basketball referee at the community and school level.

**Ronald Pelot** is a Professor in the Department of Industrial Engineering at Dalhousie University, and the Associate Scientific Director of the MEOPAR National Centre of Excellence. In 1997, he founded the Maritime Activity and Risk Investigation Network (MARIN) at Dalhousie, and since then his team has developed new software tools and analysis methods to apply to maritime safety (accidents), coastal zone security, and marine spills. Courses taught include project management, engineering economics, human factors, industrial psychology, systems engineering, operations research, and decision and risk analysis. With respect to training, he is also the Assistant Dean of Co-op in Engineering.

**Rosalind Penfound** joined the Nova Scotia Community College in the fall of 2013 as Principal for the IT and Akerley campuses. In February of 2014 she was appointed Vice-President Academic. Prior to coming to NSCC, Rosalind was a Deputy Minister in the Nova Scotia Public Service, including terms as Deputy Minister of Immigration, Environment and Labour, Agriculture, Fisheries and Aquaculture, the Public Service Commission and Education. Earlier in her career she worked with the Nova Scotia Department of Natural Resources, was a solicitor with the Council of Maritime Premiers, served as Executive Director of the Association of Nova Scotia Land Surveyors and briefly practiced law. Rosalind holds degrees in Physical Education and Law from Dalhousie University and was a part-time member of the Faculty of Law for almost 20 years. Through her senior leadership roles she has gained experience in operational, fiscal and human resource management, as well as

leading change in large, complex organizational environments. Rosalind is committed to NSCC's mission: building Nova Scotia's economy and quality of life through education and innovation.

**John Somers** joined the Nova Scotia Department of Labour and Advanced Education (LAE) as Senior Executive Director, Skills and Learning Branch in August of 2013. His current responsibilities include the Employment Nova Scotia, Workplace Initiatives, Adult Education Divisions of the Department, as well as Youth Initiatives, and the Volunteerism and Non-Profit Sector Division. He joined the Nova Scotia Public Service in 1990, serving in progressive management positions in the tourism portfolio, including Executive Director of Tourism. Prior to joining LAE, John worked as a Senior Corporate Policy Analyst in the Office of Policy and Priorities, a central agency of government.

**Roddy Warnock** is Senior Instructional Designer at Bluedrop Performance Learning. Roddy's twin interests of the oceans and education have propelled him from a Bachelor's degree in Zoology (First, Trinity College, Dublin) to studying coral reefs in Jamaica (MPhil., University of the West Indies) and oceanic phytoplankton in Canada (Ph.D., Dalhousie University). Research involving satellite remote sensing of the sea (University of Groningen, the Netherlands), the commercial cultivation of seaweed in Nova Scotia, and lecturing at Dalhousie followed. Throughout, Roddy maintained an abiding interest in teaching and how people learn. Serendipity intervened 20 years ago with an opportunity to help create CD-based interactive multimedia resources for inclusion in science textbooks. With overall responsibility for the conceptualization, design and development of instructional multimedia products, Roddy helped create dozens of educational products targeting high school and undergraduate students. With the arrival of the Web, Roddy formed Jigsaw Interactive and created a number of web-based virtual experiments in science, mostly in chemistry and astronomy. Four years ago, Roddy joined Bluedrop Performance Learning to focus on the instructional design of training systems. Roddy is responsible for identifying training performance requirements, specifying instructional strategies, defining lesson content and learning guidance, creating learning materials, designing learning assessment instruments, and evaluating training programs. Roddy has worked on many DND programs and most recently has been supporting the analysis and design of the Arctic Offshore Patrol Ship Training Program.

## CHECK OUT THE LATEST ISSUE



The Fall issue of *Canadian Naval Review* is now available!

Once again we've got an exciting line-up of articles and commentaries. We are very pleased to welcome former Senator Hugh Segal to the Editorial Board, and he has written the Editorial for this issue. As well the issue includes the winning essay from our annual essay competition – by Lieutenant (N) Jonathan Douglas, entitled “Beyond Counter-Terrorism: The RCN and Canadian Interests in the Indian Ocean.” We have an article about the Arctic and an article about child pirates, and commentaries about incidents at sea agreements in Asia, a submariner in World War I, and the next moves of Russian President Putin. And, of course, we have our regular columns.

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