

Group No. \_\_\_\_



## Ottawa Workshop on Education and Training July 11, 2017

### Breakout Session I – Education (12:40pm – 2:35pm):

The broad objectives of this session are to:

- a. Review marine education in Canada and identify current challenges
- b. Identify possible strategies for addressing perceived shortcomings

Three categories of questions:

- A. General
- B. Curriculum
- C. Practical experience
- D. Casting the net wider

#### **A General**

1. *Are you generally satisfied with the current state of marine education (university level) in Canada?*

*Express your answer on a scale of 1 to 5 where 1 = very dissatisfied and 5 = very satisfied*

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2. *Are sufficient numbers of naval architects, engineers, and technologists graduating in Canada?*

*Express your answer on a scale of 1 to 5 where 1 = not nearly enough, 3 = just about right, and 5 = too many*

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3. *Are the technical manpower needs of your organization generally satisfied by the naval architecture and marine engineering programs being offered by universities and colleges in Canada today?*

*Express your answer on a scale of 1 to 5 where 1 = Not at all, and 5 = Very much so*

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4. *One of the objectives of the National Shipbuilding Strategy is to avoid the boom and bust cycle characteristic of past acquisition programs. What can be done to align Canadian universities and colleges plans to better meet the requirements of NSS for skilled personnel?*

Suggestions

**B Curriculum**

5. *Current university/college-level education in Canada focuses on traditional naval architectural/marine engineering subjects. Should other programs/subjects be offered, e.g. shipbuilding, marine systems, marine cybernetics etc.*

Suggestions

6. *A number of technologies were identified as important in an earlier Workshop. These are:*

- *Green ship technologies*
- *Marine simulation*
- *Advanced shipbuilding technologies*
- *Ship design issues concerned with systems design and modelling*
- *Arctic technology*
- *Marine and cyber security*
- *Automation and control*

*Should curriculums include any of these subjects? If yes, what are the most effective methods?*

<b>Suggestions</b>

7. *What “soft” skills should be improved in typical graduates?*

<b>Suggestions</b>
Technical writing
Communications – presentations
Project management

**C Practical Experience**

8. *The Work Term concept has found universal support. Is it possible to a) improve it, and b) extend its use?*

Suggestions

9. *Practical Shipyard Experience is considered to be important for the education of naval architects and marine engineers. How can this be accomplished?*

Suggestions
Work terms in shipyards
Shipyard visits

**D Casting the Net Wider**

10. *There is interest in encouraging greater diversity in engineering. What initiatives can be taken to encourage greater participation by women in naval architecture and engineering?*

Suggestions

11. *What is the best way to make K-12 students aware of marine technology with the objective of encouraging students to pursue a career in this area?*

Suggestions