



**THE AMERICAN SOCIETY OF NAVAL ENGINEERS  
AND SOCIETY OF NAVAL ARCHITECTS & MARINE ENGINEERS  
SD-8 Navy Ships Panel**

*Cordially invites you to a workshop on Real Options Theory  
and Its Application to Naval Force Structure Planning and Ship Design  
to be held at*

***The Columbia Group, 20 M Street SE, Suite 700, Washington D.C on  
Friday, October 14th***

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In the evaluation of large, risky expenditures on long-lived capital investments, conventional engineering economic analysis methods do not provide adequate insight into the option value of managerial flexibility and strategic interactions. A common practical remedy is to set aside the (incomplete) analysis in favor of intuition and judgment, which in many instances results from tacit knowledge of embedded option-type value. If this value could be explicitly documented then the decision criteria would be more transparent. With this in mind, a “real” options analogy with financial options has been proposed; the attraction is that methods for valuing financial options are mature. Naval ship design and acquisition is an option-laden environment. Therefore, if a naval version of the real options analogy were developed, it would add considerable insight.

- Dr. Phil Koenig, NAVSEA 05C, “Real Options in Ship and Force Structure Analysis: A Research Agenda,” published in ASNE NEJ 2009 #4, pp 95-105.

**Agenda**

0830 – Refreshments

0900 - Introduction to SD-8 panel by Fidel Sanchez, Johns Hopkins University Applied Physics Laboratory and Chair, SD-8

0910 - Setting the stage for real options theory in ship design and naval force structure planning by Dr. Norbert Doerry, NAVSEA 05T

0930 - Introduction to Real Options Theory by LT Jon Page, USN, PEO Ships

0955 - Introduction to the DSTO and Operations Research/Navy Force Structure efforts by Dr. Kurt Brinschwitz, Defense Science and Technology Organization (DSTO), Maritime Operations Division, Australia

1025 – SERC (Systems Engineering Research Center) efforts in Real Options Theory by Dr Dinesh Verma, SERC Executive Director and Dean, School of Systems and Enterprises, Stevens Institute of Technology

1050 - Open Discussion to

- Identify the opportunities for Real Option Theory in force structure planning and ship design
- Identify the barriers in using Real Option Theory in force structure planning and ship design

1145 - Recap on findings by Dr. Norbert Doerry

1200 - Adjourn