Rebuilding Naval Fleets

Lessons Learned from the UK Experience
# Rebuilding Naval Fleets. Lessons Learned from the UK Experience

Presented at the Naval Postgraduate School’s 8th Annual Acquisition Research Symposium, 10-12 May 2011, Seaside, CA. U.S. Government or Federal Rights License

| 1. REPORT DATE | May 2011 |
| 2. REPORT TYPE | |
| 3. DATES COVERED | 00-00-2011 to 00-00-2011 |
| 4. TITLE AND SUBTITLE | Rebuilding Naval Fleets. Lessons Learned from the UK Experience |
| 5a. CONTRACT NUMBER | |
| 5b. GRANT NUMBER | |
| 5c. PROGRAM ELEMENT NUMBER | |
| 5d. PROJECT NUMBER | |
| 5e. TASK NUMBER | |
| 5f. WORK UNIT NUMBER | |
| 6. AUTHOR(S) | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) | Rand Corporation, PO Box 2138, Santa Monica, CA, 90407-2138 |
| 8. PERFORMING ORGANIZATION REPORT NUMBER | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | |
| 10. SPONSOR/MONITOR’S ACRONYM(S) | |
| 11. SPONSOR/MONITOR’S REPORT NUMBER(S) | |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT | Approved for public release; distribution unlimited |
| 13. SUPPLEMENTARY NOTES | Same as Report (SAR) |
| 14. ABSTRACT | |
| 15. SUBJECT TERMS | |
| 16. SECURITY CLASSIFICATION OF: | |
| a. REPORT | Unclassified |
| b. ABSTRACT | Unclassified |
| c. THIS PAGE | Unclassified |
| 17. LIMITATION OF ABSTRACT | Same as Report (SAR) |
| 18. NUMBER OF PAGES | 16 |
| 19a. NAME OF RESPONSIBLE PERSON | |
Since 2000, MOD Has Engaged RAND to Study Major UK Warship Programs . . .

- Type 45 Destroyer
  - Acquisition options and implications
- Future Aircraft Carrier Programme
  - Options for reducing costs
and to Evaluate the UK’s Maritime Industrial Base and Shipbuilding Processes

- Type 45 Destroyer
  - Acquisition options and implications

- Future Aircraft Carrier Programme
  - Options for reducing costs

- United Kingdom’s Naval Shipbuilding Industrial Base

- Outsourcing and Outfitting Practices

- Monitoring Shipbuilding Programmes’ Progress

- Differences Between Military and Commercial Shipbuilding

- UK Submarine Industrial Base
  - Sustaining design and production resources
  - MOD roles and required technical resources
  - Options for initial fueling

- Sustaining Key Skills in the UK Naval Industry
Think of Two Periods for UK Naval Programs

1990 to 2000

• End of Cold War led to force draw down
  – Need for less capability
  – Money was not the issue
• Competition was king
• Fixed price contracts were the norm
• Responsibilities shifted to industry
• Decade ended with ambitious shipbuilding plans

• 2000 to 2010
Post-Cold War Force Reflected Lower Requirements

Year

Aircraft Carrier

Destroyers / Frigates

Cruisers

Large Amphibious Ships

Balistic Missile Submarines

Nuclear Attack Submarines

Conventional Attack Submarines

Mine Hunters and Coastal Craft

200

120

80

40

0

1970

1980

1990

2000

160

120

80

40

0
And Led to Declining Combatant Deliveries. . .
And Declining Shipbuilding and Repair Employment...
That Occasioned Bankruptcies and Consolidation in UK Shipbuilding Industry

1985

- Harland & Wolff
- Swan Hunter

1990

- Appledore
- Ferguson (Port Glasgow)

1995

- Cammel Laird

2000

- Barrow
- Govan
- Kvaerner

2005

- Scotstoun
- GEC
- GEC/Marconi
- BAE Marine

- Vosper Thornycroft
- VT Group

= Receivership
In 2000, the UK Announced an Ambitious Shipbuilding Plan

- Future MH: 4
- Future Sub: ?
- FSC: 14
- MARS: 10
- JCTS: 1
- Astute: 8
- CVF: 2
- OPV (H): 2
- T45: 12
- LSD(A): 4

N = Production Run

Timeline:
- 2005
- 2010
- 2015
- 2020
Think of Two Periods for UK Naval Programs

1990 to 2000

2000 to 2010
• Competition wasn’t working
• Cost and schedule problems
  – Astute
  – Type 45
• Money became tight
• Defense Industrial Strategy; Maritime Industrial Strategy
• Industry consolidation
• Terms of Business Agreement
Ambitious Plans Have Been Scaled Back

- Future MH
- Future Sub
- FSC
- MARS
- JCTS
- Astute
- CVF
- OPV (H)
- T45
- LSD(A)


N = Production Run
And the Fleet Continues to Shrink
As Shipbuilding Industry Base Consolidated

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Harland & Wolff | Swan Hunter | Appledore | Ferguson (Port Glasgow) | Cammel Laird | Barrow
Scotstoun | GEC | GEC/Marconi | BAE Marine | Cammel Laird | Kvaerner
Vosper Thornycroft | Govan | VT Group | = Receivership | BVT | BAE
What Should US Defense and Industry Leaders Take Away from the UK Experience?

• In recent past, UK defense policymakers
  – Didn’t pay close-enough attention to nor act upon long-term needs
  – Let government technical and program management skills atrophy
  – Shifted too much responsibility and risk to shipbuilders
  – Held a laissez faire economic attitude regarding shipbuilding industrial base
    • Mergers/acquisitions
    • Bankruptcies

• Today, MOD is playing catch-up to redress these shortcomings
  – Redressing these issues simultaneously and quickly will be challenging
Lessons for the U.S. (?

• Take a long-range strategic view
• Use consolidated plans not program specific
• Sustain key resources
• Choose when to use competition
• Choose when to use fixed price contracts
• Be prepared to close shipyards
Our UK Ministry of Defence Work Has Covered Broad Range of Issues