



Acquisition Research Program:
Creating Synergy for Informed Change

Managing the Risks of Contracting for Complex Contracts

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The Challenge of Contracting for Large Complex Projects:
A Case Study of the Coast Guard's Deepwater Program



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Contracting Series

Contracted Versus Internal Assembly for Complex Products:
From Deepwater to the Acquisition Directorate in the U.S. Coast Guard



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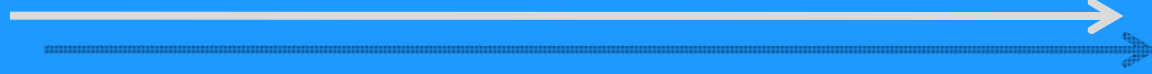
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Contracting and Acquisition Series

Simple versus Complex Products

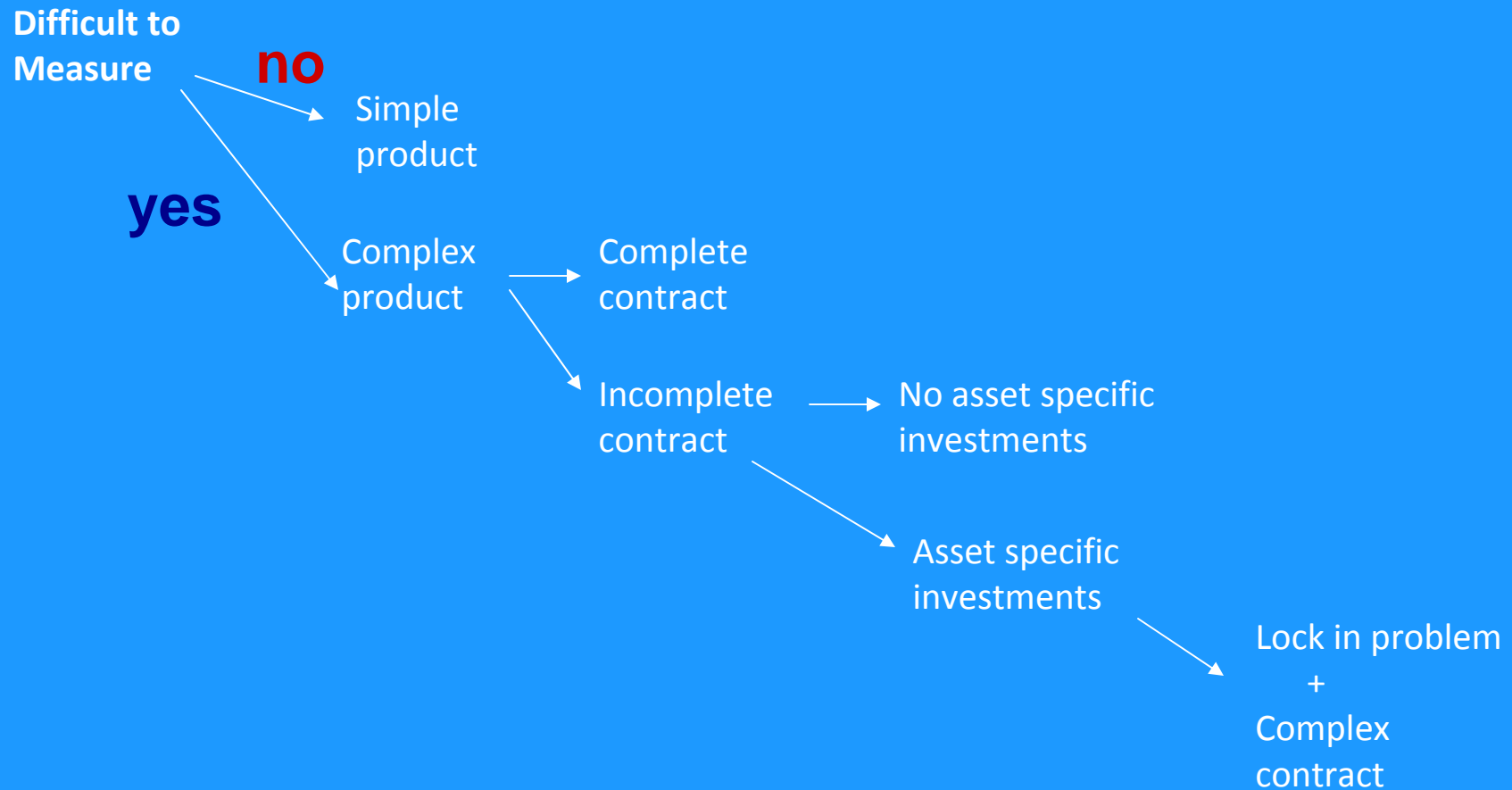
Buyer Uncertainty



Seller
Uncertainty



Theory of complex products



Deepwater Program Overview

Providing New Assets, Systems and Capabilities



Coast Guard Roles

Guardians of the Sea

Maritime Security

Upholds the Law



Maritime Safety

Rescues the Distressed



Protection of Natural Resources

Protects the Environment



Maritime Mobility

Ensures Safe Marine Transportation



National Defense

Operates with the U.S. Navy



Simple vs. Complex Products



What's Complex?



USN DDG 51 Arleigh Burke



CG NSC Bertholf

USN Littoral
Combat Ship
Freedom

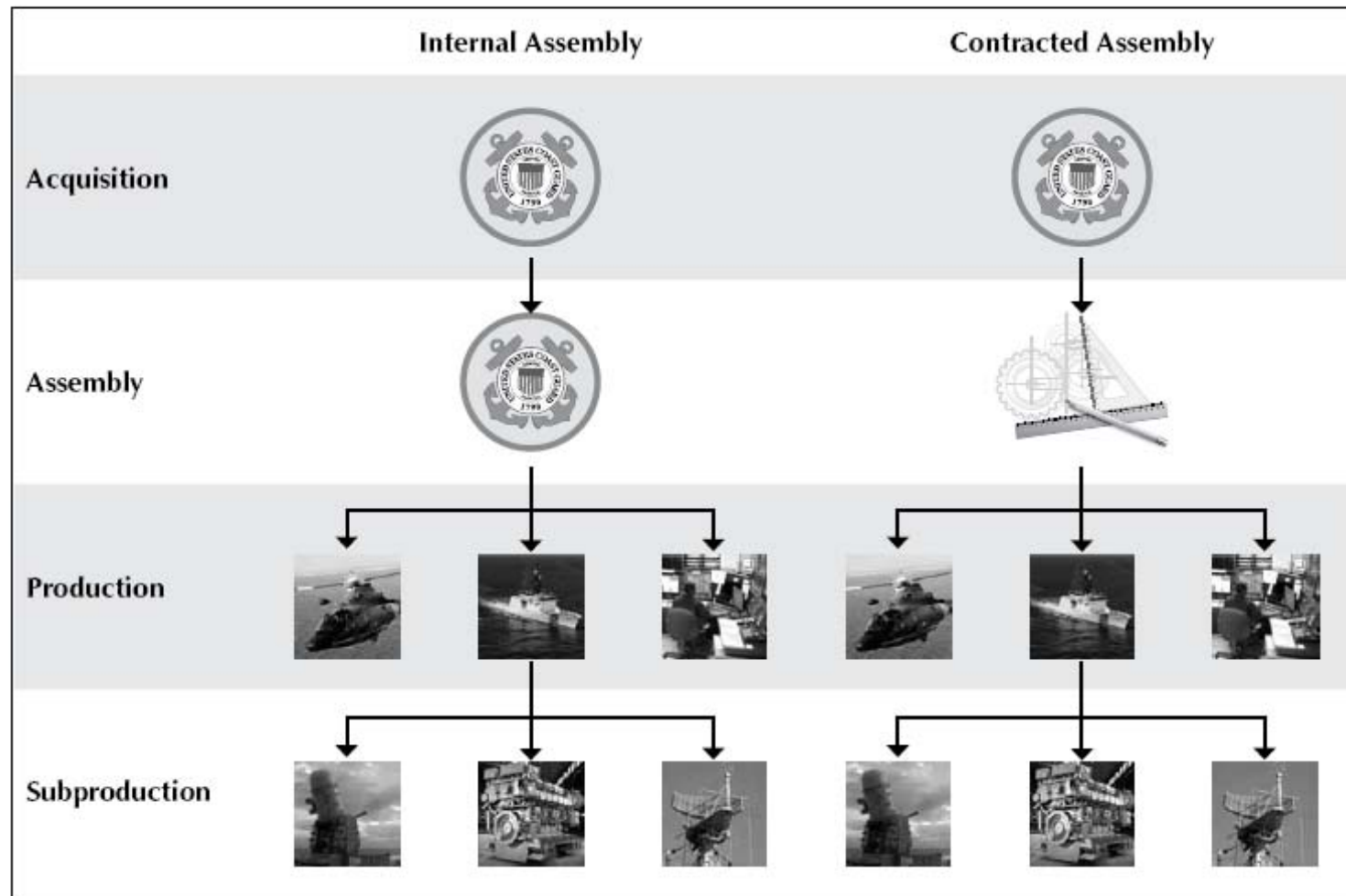


USN Littoral
Combat Ship
Independence



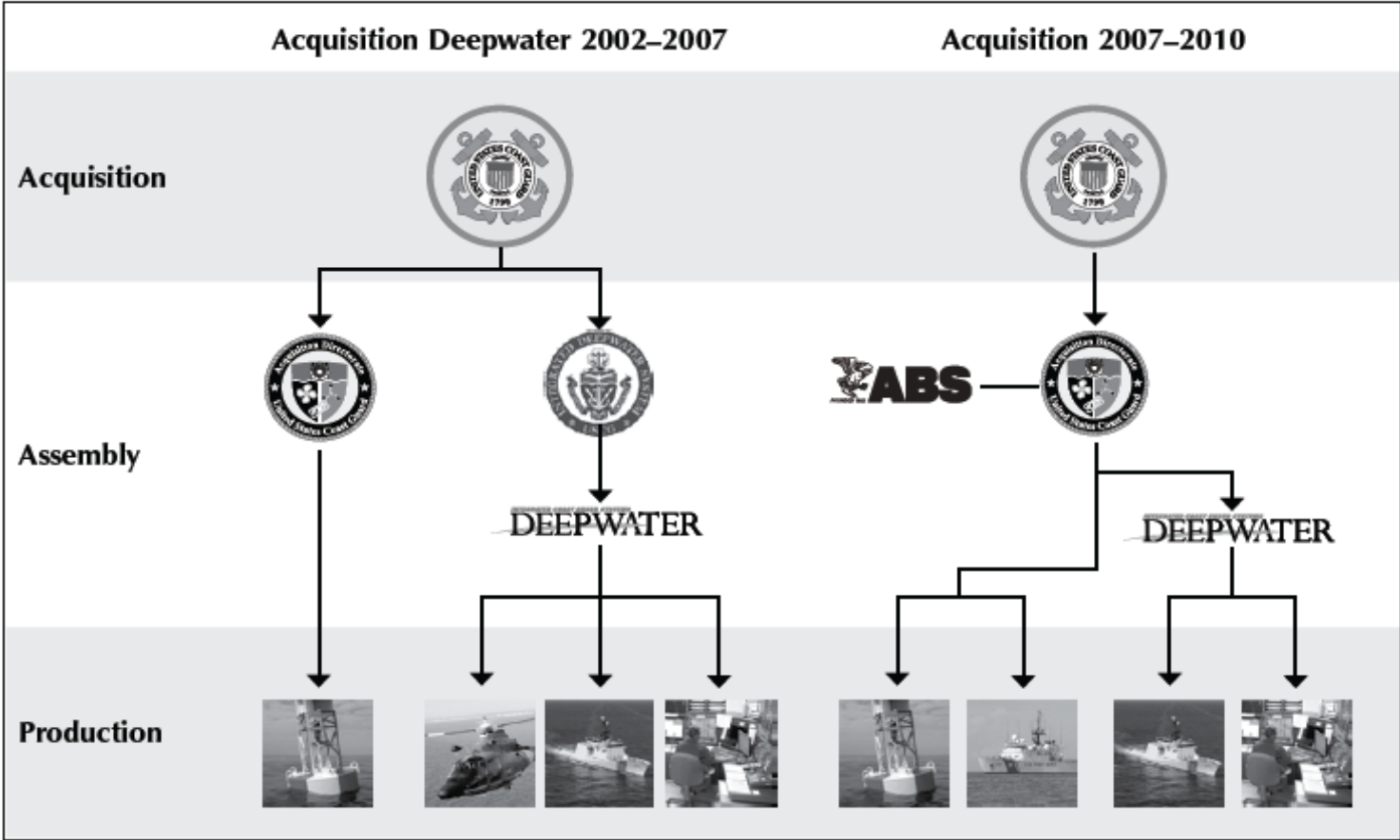
Internal vs Contracted Assembly

Figure 8: Internal versus Contracted Assembly



Pre & Post Deepwater Acquisition Structures

Figure 14: The Coast Guard's Acquisition Approach Through the Deepwater Program



Key Lessons

- ▣ **The product's characteristics are the initial source of costs and risks**
- ▣ **Contracting for assembly may be cheaper, but it also increases risk**
- ▣ **Performing assembly internally may lower risk, but It also raises costs**