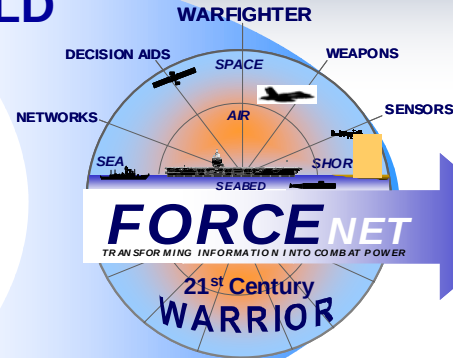


SEA POWER 21 . .

SEA SHIELD

SEA BASING



SEA STRIKE

Navy Transformation

Network Centric Warfare and FORCEnet

John Robusto

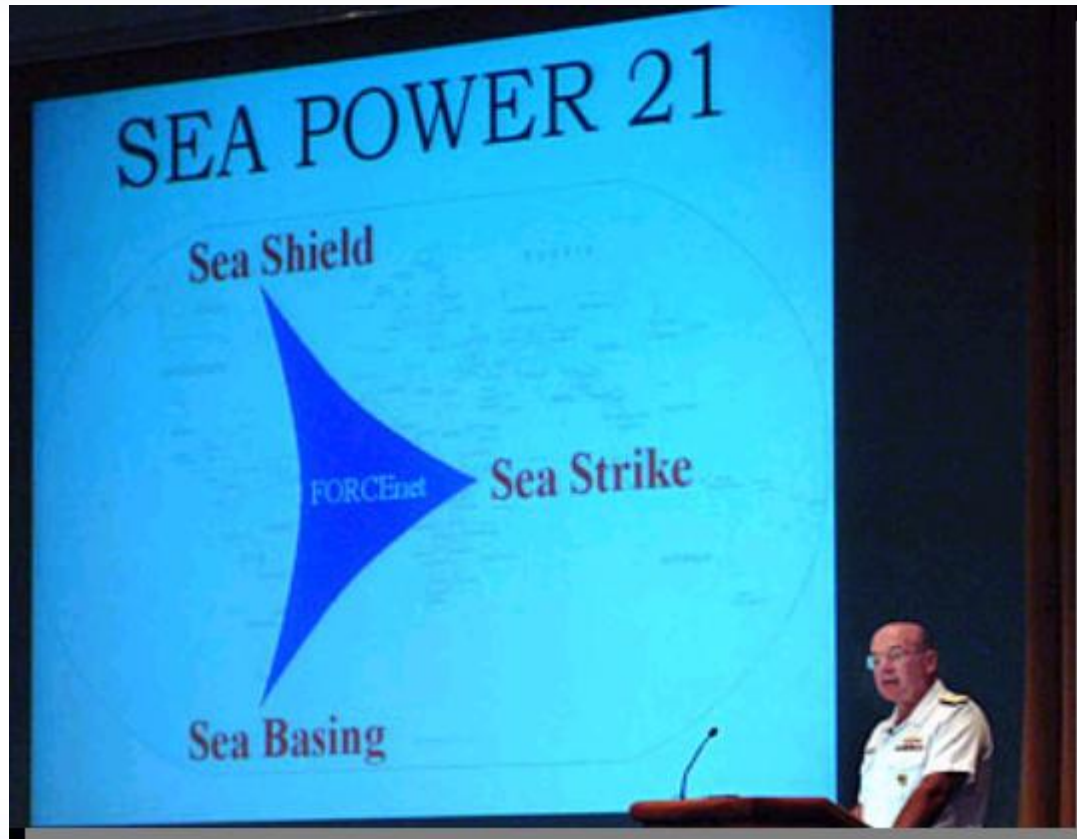
Director, Network Centric Warfare

Naval Air Systems Command

24 September 2002

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Why FORCEnet?



FORCEnet . . .

Transforming information into Combat Power



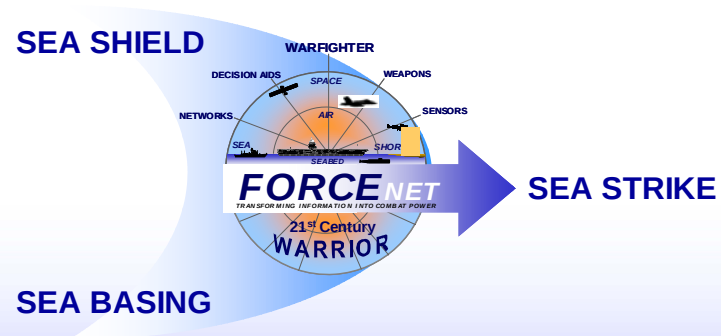
Transforming the 21st Century Navy . . .

Assuring Power and Access . . . From the Sea

Why SEA POWER 21?

- Current force structure must adapt to changing threats and environments
- US Naval Forces must sustain combat advantage
- Must direct investments providing 21st Century Warrior with affordable, integrated and maximized kinetic effects

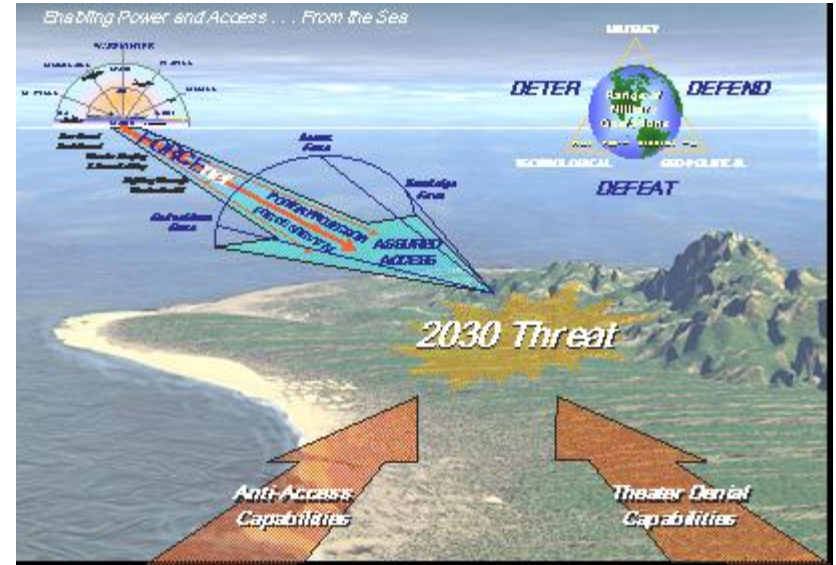
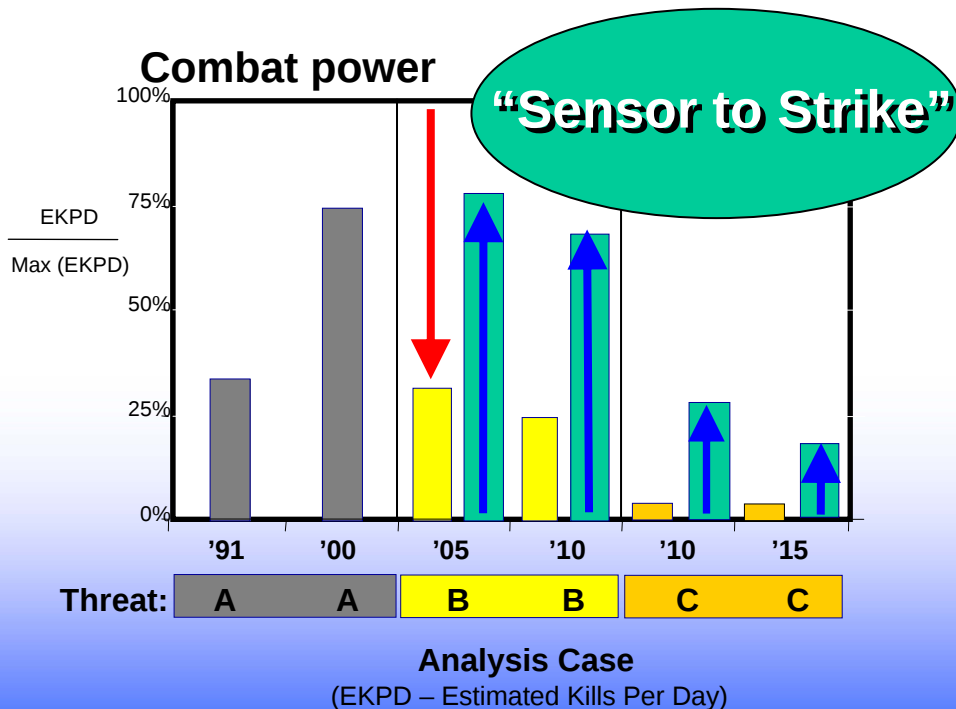
SEA POWER 21 . . .



Transforming the Navy to meet 21st Century Challenges

Why SEA POWER 21?

NCW provides the dominant
combat power as adversary
capabilities grow

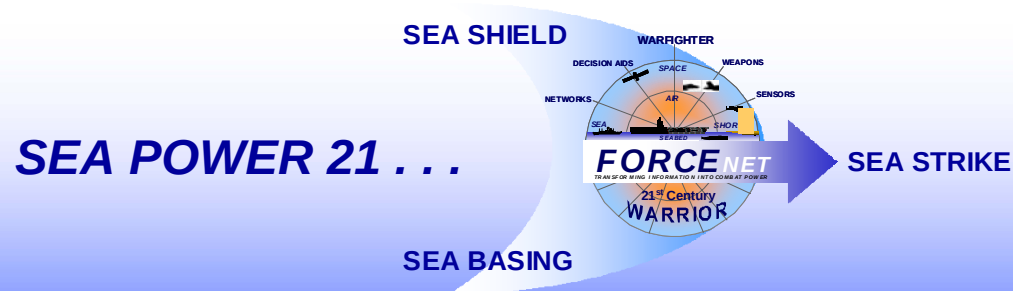


Advanced Combat Power for the Naval Force

- Pervasive Littoral Awareness
- Total Force Network
- Self-Synchronized, Effects-Based Information & Kinetic Operations

SEA POWER 21 Starts NOW

- Incremental delivery of prototypes to Fleet through experimentation
- Integrate capabilities to deploying Naval forces according to the Blueprint
- Engage Industry
- Apply guiding concepts and requirements to POM
- Refocus recruiting, training and retention on 21st Century Warrior
- POM 04 supported



Transforming the Navy to meet 21st Century Challenges

FORCEnet Definition*

“The operational construct and architectural framework for Naval Warfare in the Information Age which integrates Warriors, sensors, networks, command and control, platforms and weapons into a networked, distributed combat system, scalable across the spectrum of conflict from seabed to space and sea to land.”

*SSG-XXI recommended definition from 22 July 02 CNO Briefing

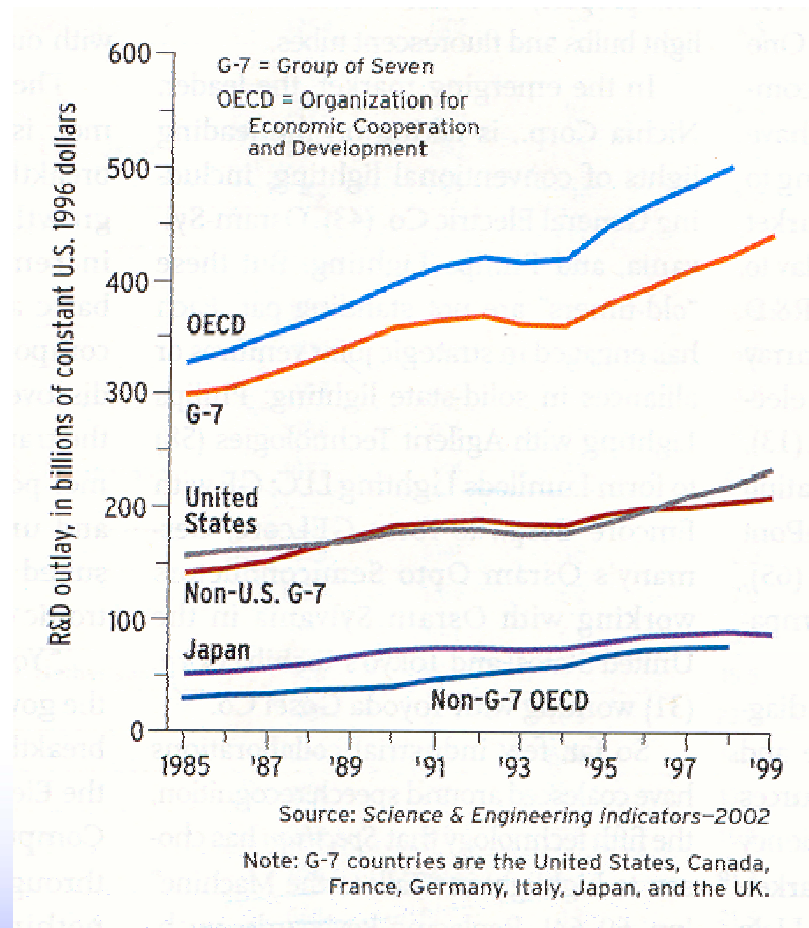
Our Challenge

- Can't afford to maintain current force structure
- Can't afford to lose next war
- Must redirect investments to provide the 21st Century Warrior with integrated, interoperable combat and combat support systems

FORCEnet . . .

Transforming information into Combat Power

International R&D Investment



R&D Expenditures (1985-1999)

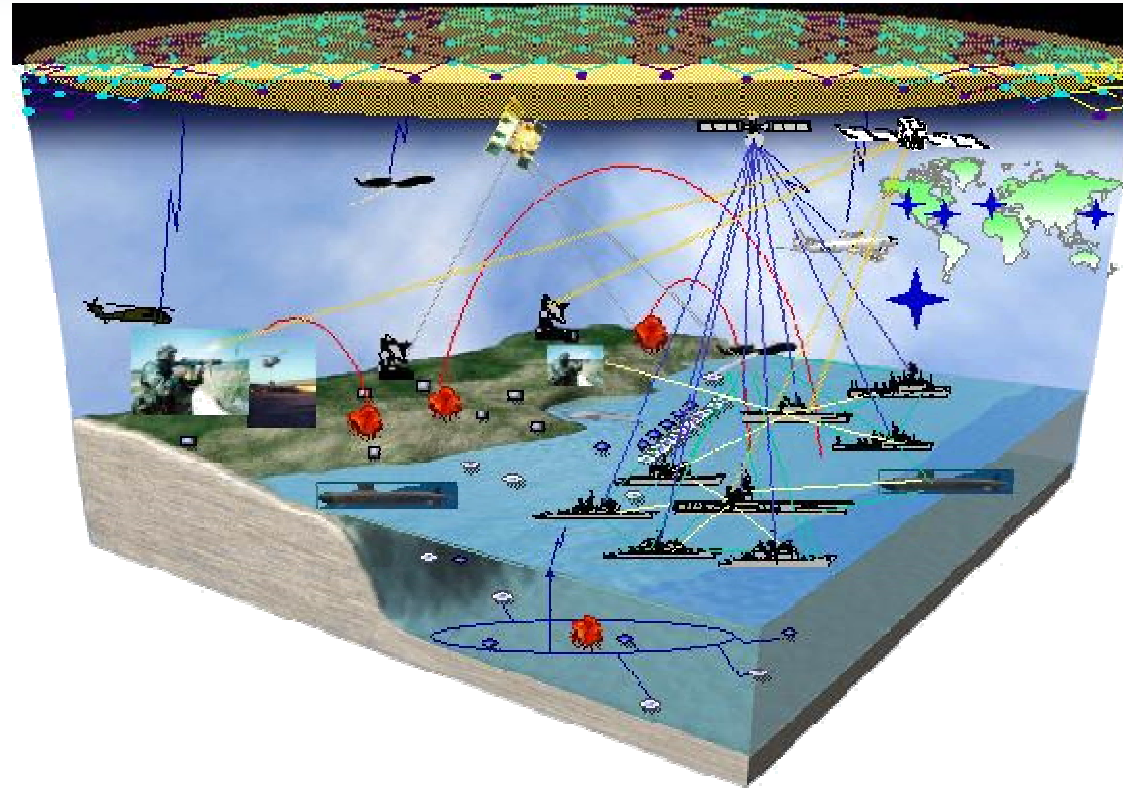
FORCEnet

Network Centric Warfare is the theory.

Network Centric Operations is the concept.

FORCEnet is the process of making the theory and concept a reality.

FORCEnet is the integration of sensors, networks, weapons, platforms, information and people to provide agile, lethal, efficient combat power.



FORCEnet is the Systematic Acceleration of NCW to Reality

Information & Knowledge Advantage

Seamless Information Transport – Battlespace Nodes

Homeland Defense

CONUS

Intelligence
Production Center
Higher Headquarters

CVBG/NFACC

FLAG SHIP
CJTF

AR.G/MEU
JFMCC

Sea-Based Operations

1st-Strike Sustainment

Assured Access

Naval FOF-Maritime Traffic

Mine Countermeasures

Effects-Based Operations

Distributed Precise Fires

Close Air Support

Persistent Intelligence Surveillance & Reconnaissance

Tiered Sensor Architecture

Time Critical Targets

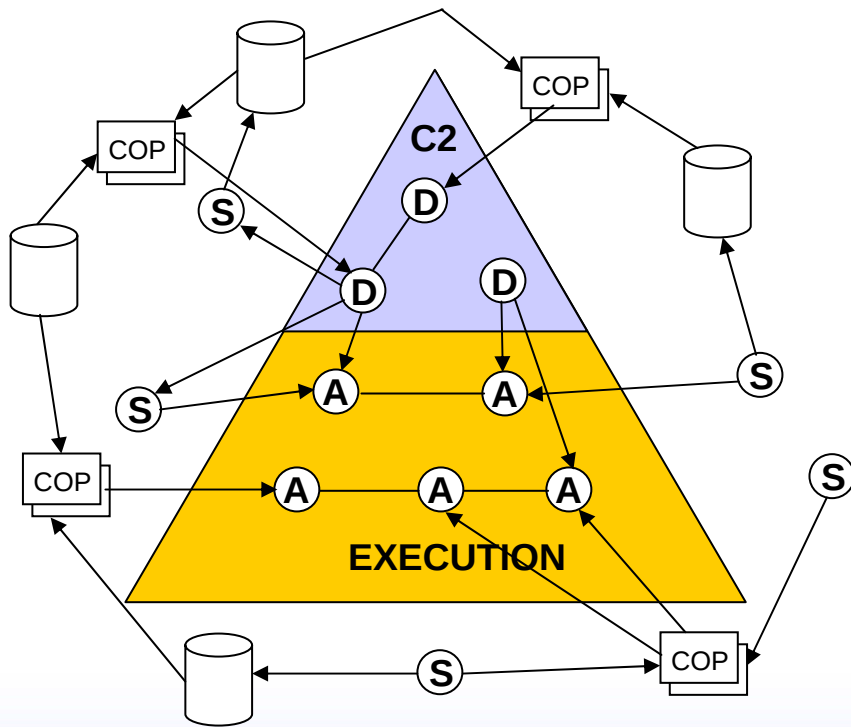
FORCEnet LOE Campaign

- Littoral Presence
- Sea Control – Maritime Lanes
- Assured Access
- Advanced Power Projection
- Regional Knowledge
- Agile Knowledgeable Force

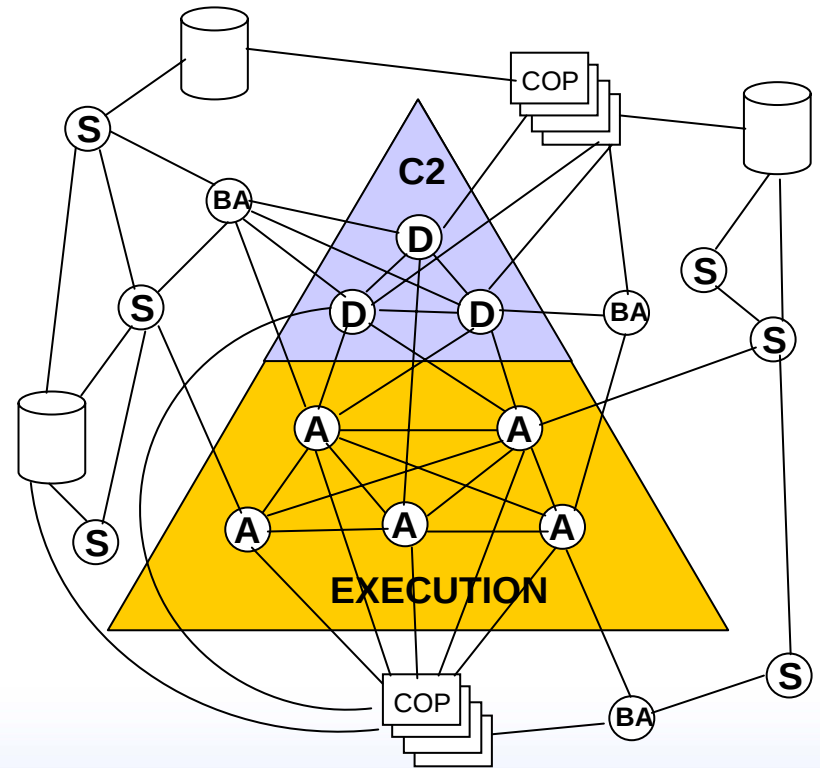
Network Centric Warfare - C4ISTAR Implications

Transforming Roles of Battlespace Entities

Late 20th Century



21st Century



Data & Information Store



Sensor Entities



Battlespace Agents



COP Process



Actor Entities



Decision Entities

FORCEnet Human Element

- Provide the Fleet with highly skilled, trained, and continuously educated teams
- Task Force Excel and Sea Warrior
- Recruit, train, educate and retain skilled Sailors and Officers
- Create challenging learning opportunities with flexible incentive packages
- Support/meet both the Fleet and individual needs

STRONG CONTRIBUTOR TO HOLISTIC NAVY HR IMPROVEMENTS

Major Activities

- Enhanced Naval and Joint Force Experiments
- Industry to augment Naval, Joint experimentation
- Leverage Academic Institutions' initiatives
- Revised Mission Capability platform and equipment roadmaps driven by quantitative and qualitative analysis
- Modeling and simulation and war gaming coupled with enhanced integrated ground test systems
- Utilize Naval Warfare Systems Forum (NWSF) as a single POC for Navy Warfare Center's Laboratories (Foundation for FORCEnet Development Center)

SUMMARY

- FORCEnet is the foundation for Sea Power 21
- FORCEnet operations require a highly networked force supported by advances in information age capabilities
- 50% of FORCEnet will be the Human element - -
21st Century Warrior
- FORCEnet is not a box
 - Will serve as a catalyst for enabling Sea Power 21
- FORCEnet has no end state
 - Will evolve as technologies allow
- Implementing FORCEnet requires new organizational approaches and implementation strategies

FORCEnet Points of Contact

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 - RADM Bowler, N60/N70
 - RADM Zelibor, N61
- FORCEnet Team Leadership
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