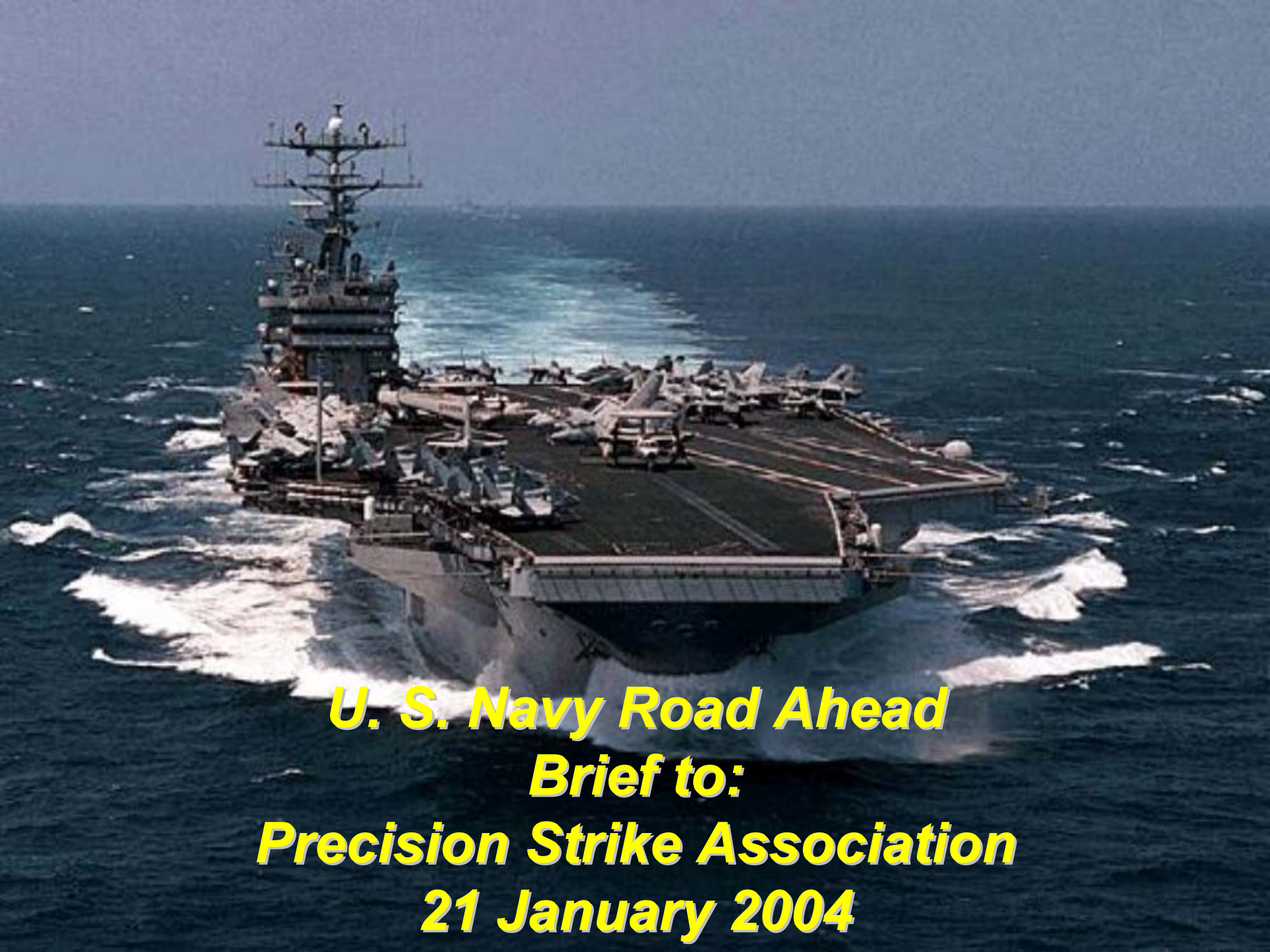
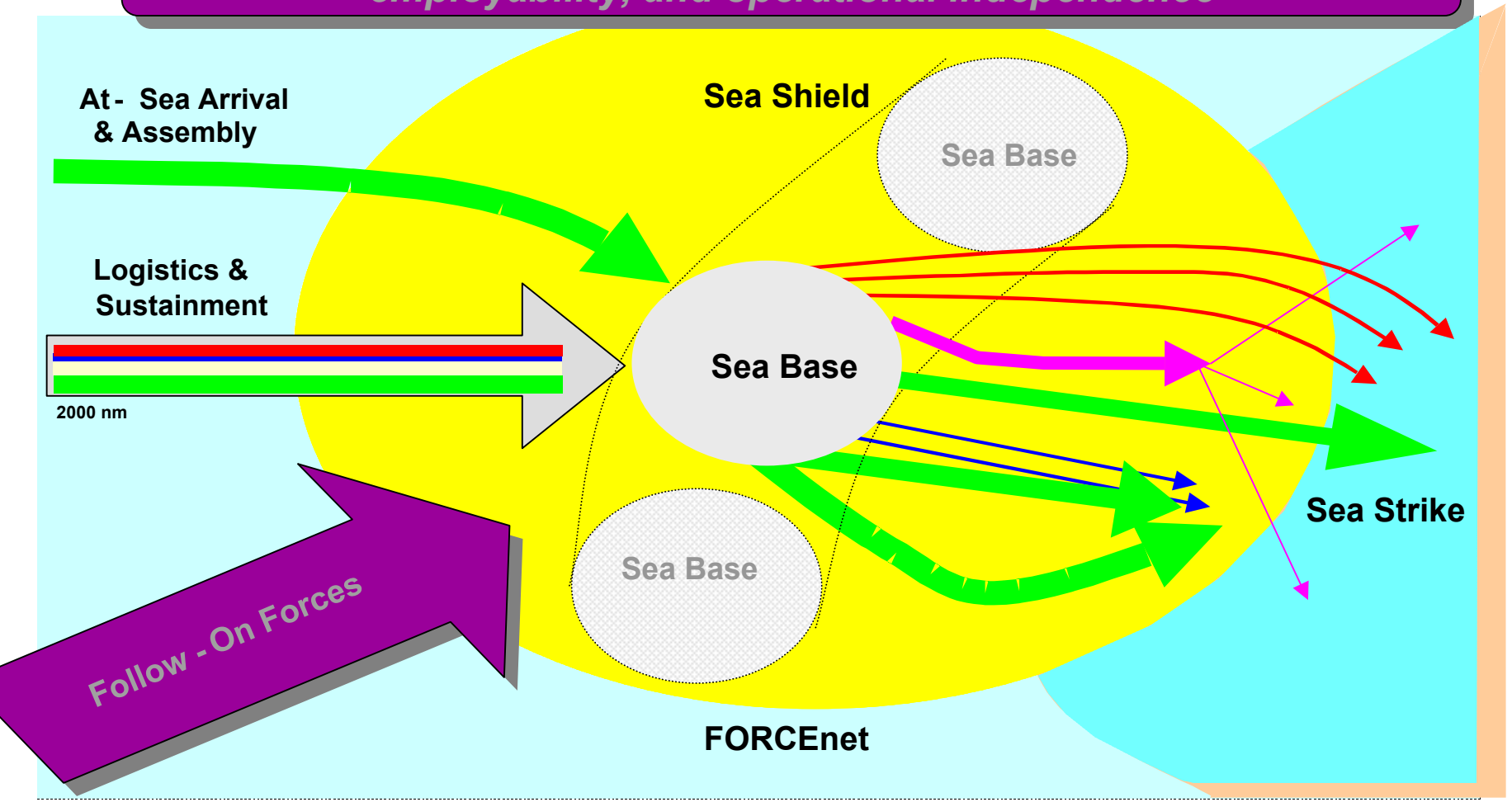


U. S. Navy Road Ahead
Brief to:
Precision Strike Association
21 January 2004

N6 / N7
Naval Warfare

Sea Power 21

Joint power from the sea with the advantages of security, immediate employability, and operational independence

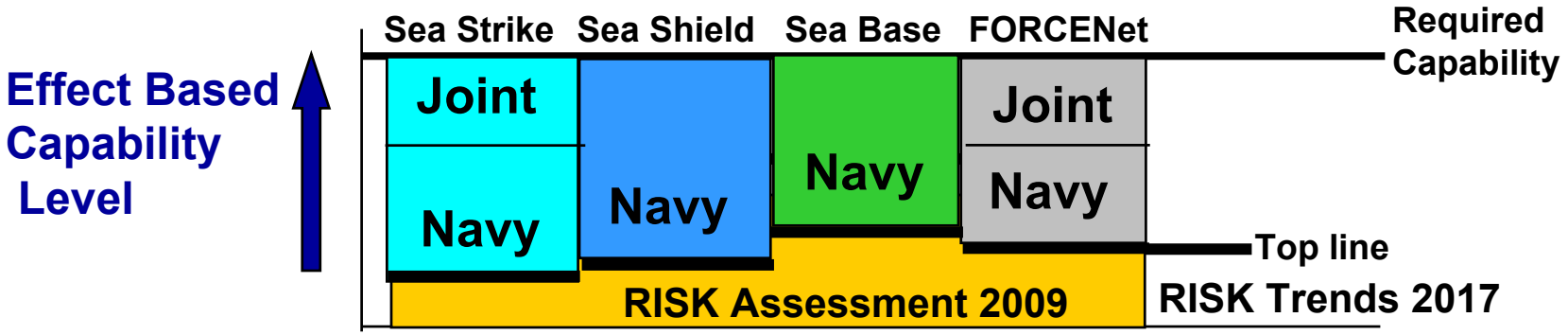


Big Picture

- **N6/N7 align, organize, integrate, transform around Seapower 21**
  - Treat the 4 warfighting concepts of Seapower 21 as core Naval capabilities
  - Enhance Requirements leadership role
  - Enhance System Command leadership role
  - Establish and maintain process business rules through N70

Integrated Strategic Capabilities Plan

- How much of which warfare capabilities the Navy needs to ensure that the joint force wins
  - Fiscally balanced distribution of available resources
  - Risk assessment
  - Program vision
  - Technically assessed



SEA POWER 21

Sea Strike

- Time Sensitive Strike
- Persistent ISR
- EW/IO
- STOM
- Covert Strike

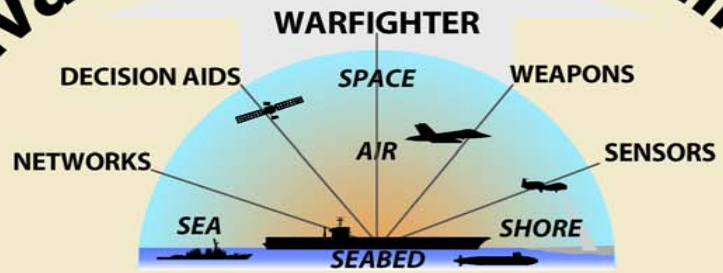
Sea Shield

- Theater Air & Missile Defense
- Littoral Sea Control
- Homeland Defense
- Force Entry Enabling

Sea Basing

- Accelerated Deployment & Employment Time
- Enhanced Sea-borne Positioning of Joint Assets
- Offensive and Defensive Power Projection
- Integrated Joint Logistics
- Command and Control

Naval Aviation Capabilities



FORCENET

PLATFORMS

- CVN-21
- EA-18G
- F/A-18E/F
- JSF
- UCAV-N
- BAMS UAV
- E-2 Advanced Hawkeye
- E-6B
- MMA
- MH-60R/S
- KC-130J
- MV-22
- CH-53E
- AH-1Z
- UH-1Y

WEAPONS

- JASSM
- JSOW, AARGM/QB
- JDAM, HART
- DAGR/LOGIR
- JCM
- AMRAAM P3I
- AIM-9X

NETWORKS

- Wide Band Network (WBN)
- JSIP-N/Follow-On
- CDL-N
- JMPS
- CEC/JCTN
- TBMCS
- JC-2, IT-21, NMCI
- LINK 4/11
- JWACS SIPRNET/NIPRNET

SENSORS

- ATFLIR AESA Phase II
- SHARP P3I
- AEA Digital Sys
- MMA
- JMOD II
- SH-60R MMRS (SAR/PD)
- RMP P3I
- AQS-22

Right Capability Sets Balance ?

Complementary Attack Resources
- ✓ Naval Aviation
- ✓ Sea-Based
- ✓ Shore-Based

Provide Complementary Capabilities
- ✓ Range
- ✓ Volume
- ✓ Precision
- ✓ Lethality

In a Variety of Supporting Roles
- ✓ Close Supporting Fire
- ✓ Counterfire
- ✓ Deep Supporting Fire
- ✓ SEAD

To Attack Variety of Target Sets
- ✓ Size (Area-Point)
- ✓ Location (Stationary-Moving)
- ✓ Posture (Attacking-Defending)
- ✓ Protection (Hard-Soft)

Sea Strike Vision

- Power projection revolution
- Seamless Navy and USMC integration
- Single integrated and joint time sensitive targeting
- Decisive, persistent, lethal projection of precision power to support joint forces
- Technology focused on speed and lethality

Operational Environment

- When operating in the expected future environment, the Air Wing will be:
  - A forward deployed, expeditionary force, self sufficient and capable of supporting both organic and joint operations
  - Integrated with the joint C4I architecture
- Dominant force for full spectrum of operations
  - Surveillance
  - Battle space shaping
  - Naval fires
  - Power Projection
  - Sea Based

Assured Access

OPNAV Mindset

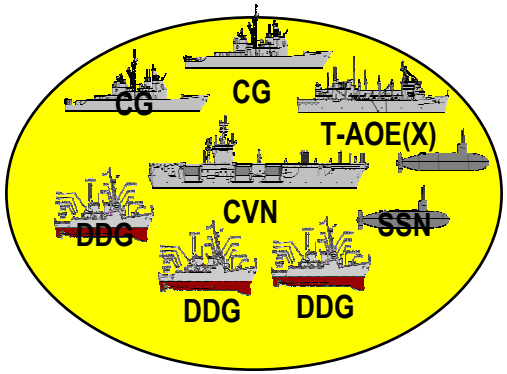
- Identify areas to improve effectiveness and efficiency
- Divest from legacy systems when appropriate
- Transform capabilities when technology allows vs. spirally develop in block fashion
- Accept operational risk at a reasonable level – mitigate through CONOPS and warfighting enhancements
- Reduce lifetime Operations and Support cost

More effective, efficient, modern, and capable force

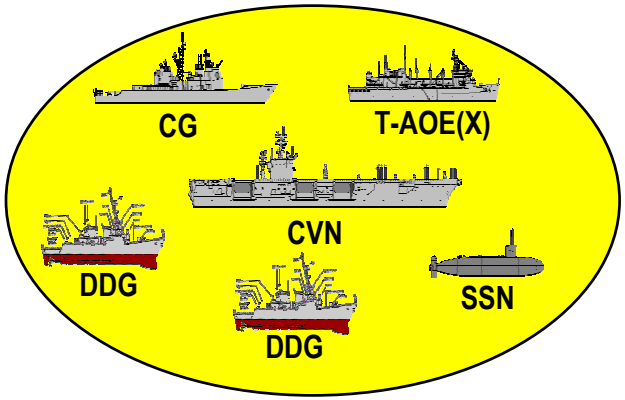
N6 / N7
Naval Warfare

Expeditionary Strike Force -
Carrier Strike Group and Expeditionary Strike Group

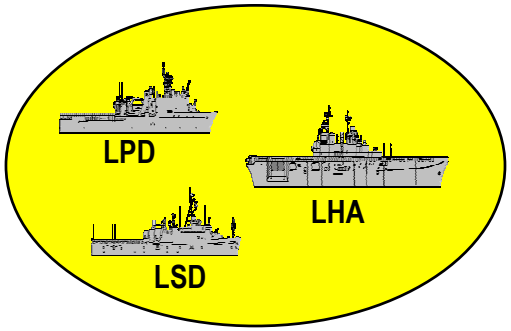
CVBG → **CSG**



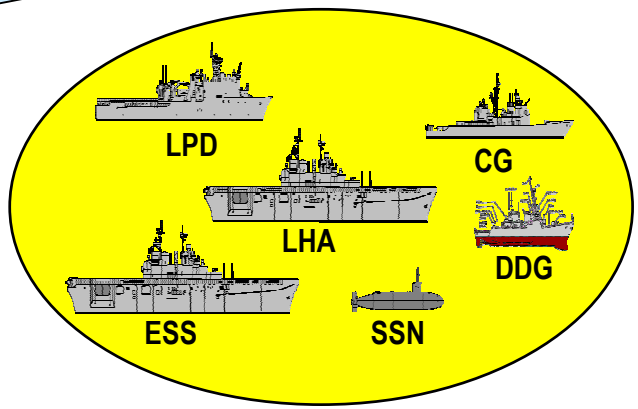
- ✓ Stealth
- ✓ Standoff Precision Strike
- ✓ Enhanced Intelligence, Surveillance, Recon
- ✓ Improved Threat Detection
- ✓ Advanced Electronic Attack



ARG/MEU → **ESG**



- ✓ Stealth
- ✓ Austere Site Capability
- ✓ Imbedded Ground Combat Element
- ✓ Standoff Precision Strike



Maximum Combat Power Forward

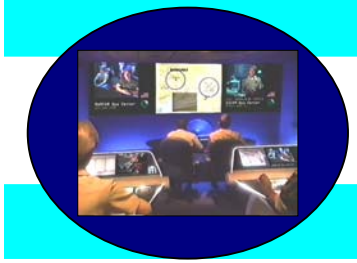
Carrier Evolutionary Strategy

TODAY

2015

2020

Commercial Ship Technologies

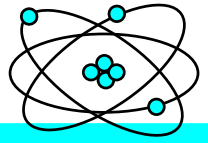


Integrated Warfare System

New Electrical Generation and Distribution

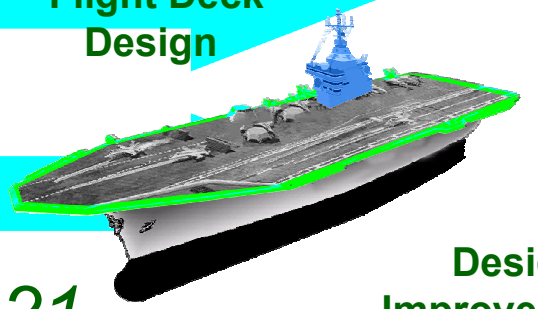
Electromagnetic Aircraft Launch System (EMALS)

New Propulsion Plant



Advanced Flight Deck Design

Advanced Arresting Gear (AAG)



Design Improvements

CVN-21

500-800 Fewer Billets

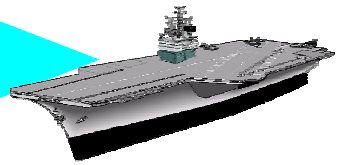
$1.8 – 4.7B Lower TOC

CVN 77

60 - 210 Fewer Billets

$1.1 – 2.0B TOC Reduction

Selected Backfit



Air Wing Composition -- 2010

- 44 F/A-18C/E/F
- 4-6 HE2000 CEC/E-2C Advanced Hawkeye
- 5-6 EA-6B/EA-18G
- Transition from 6 SH-60F/H to 20-23 Helicopters (10 - 12 on CVN)
  - 10-13 MH-60R (4 resident on CVN)
  - 10 MH-60S (8 resident on CVN)
- C-2/MH-60S/CH-53

F/A-18E/F & JSF More Capable:
Range, Payload, Bring-Back, State of the Art Sensors

An Affordable Strike Fighter Solution

Today

64 Squadrons
4 USMC CVW Squadrons
0 USN Expeditionary Squadrons

Program of Record
Procurement Completes FY26
548 F/A-18E/F + 1089 JSF= 1637

Transformed

59 Squadrons
10 USMC CVW Squadrons
3 USN Expeditionary Squadrons

Procurement Completes
FY21
460 F/A-18E/F + 680 JSF= 1140

T/M/S Reduction: 16 → 8

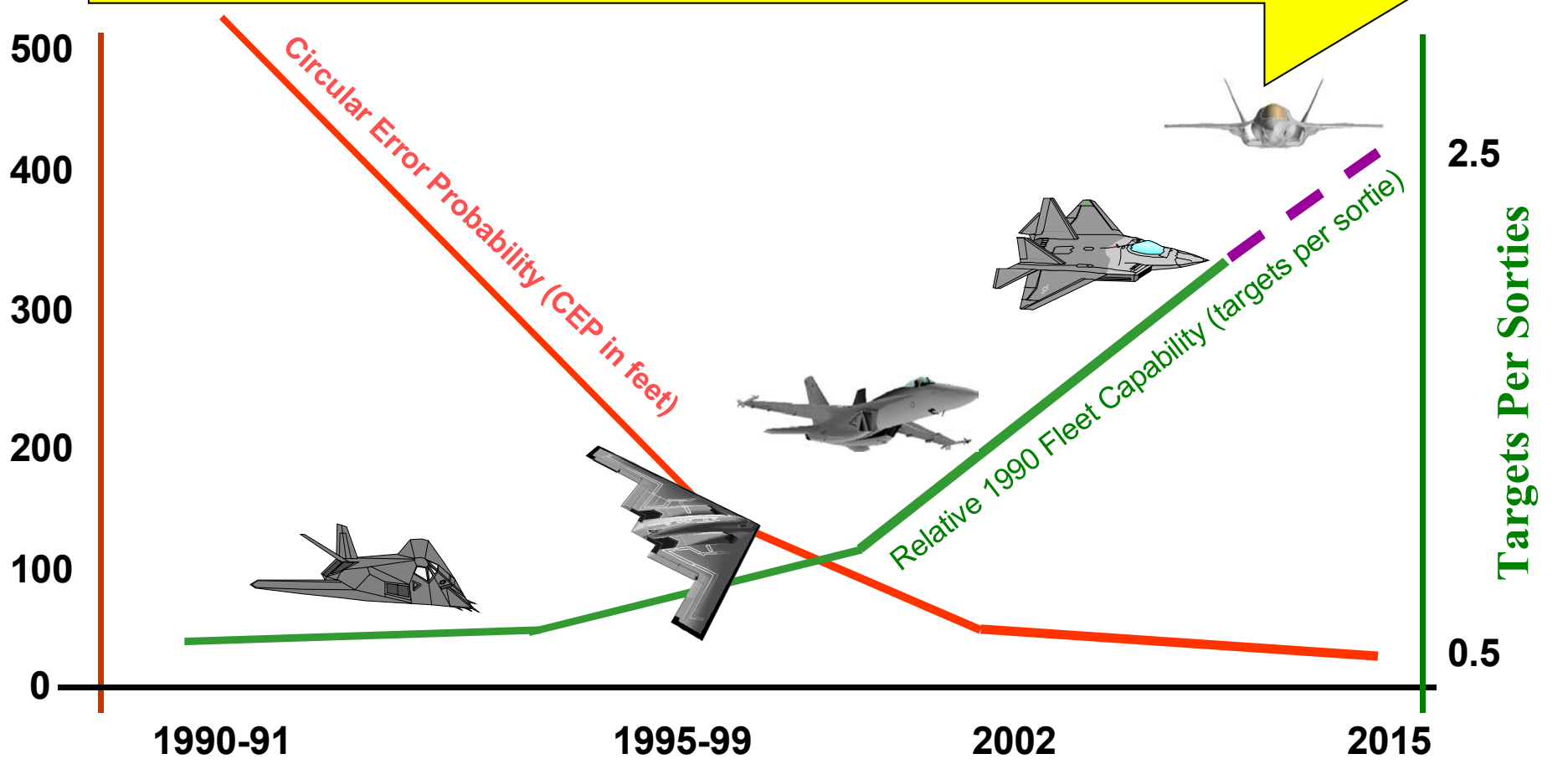
Emphasis on Increased Capabilities

Gulf War
9% PGMs

Bosnia / Allied Force
99.5% PGMs plus
Initial GPS weapons

OEF/OIF
Heavy reliance on
LGBs and GPS

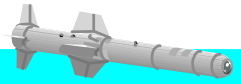
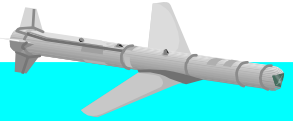
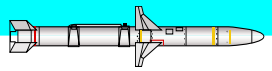
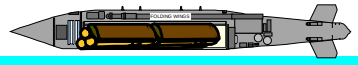
Future
Precise PGMs
PJDAM, SDB



Revolution in Precision Strike at Reduced Risk

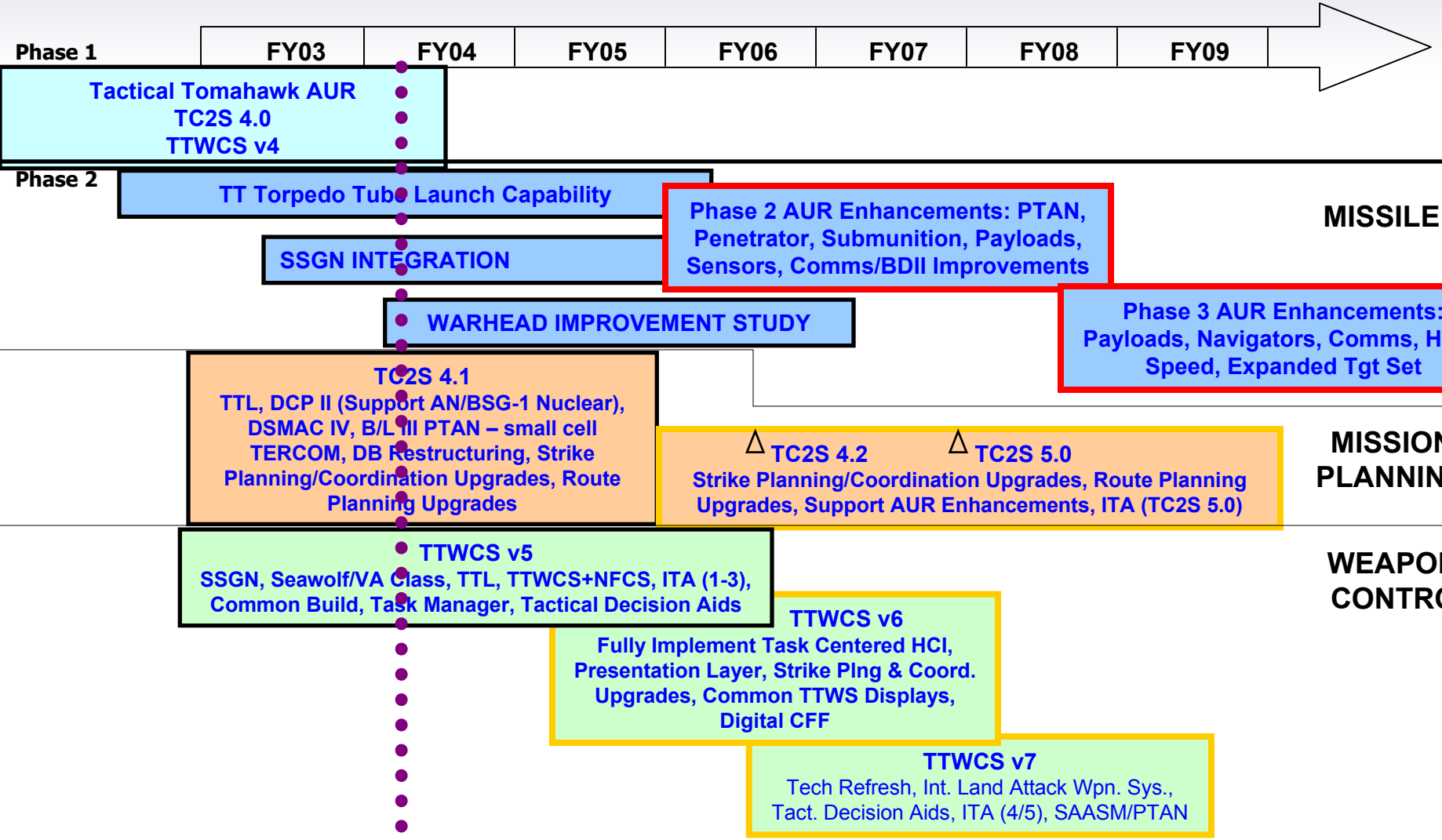
N6 / N7
Naval Warfare

Strike Weapons Roadmap

	TODAY	FYDP	2015
LR Standoff	 SLAM ER	 SLAM ER+	JASSM
MR Standoff	 JSOW "A"  HARM	 JSOW A, B, C HARM BLK VI	JSOW AARGM
Direct Attack	 Maverick  GBU-24  Laser GB  JDAM	 JDAM 82, 83, 84 GBU 24, LGB	SDB II
Moving/ Mobile Target	Laser GB, GP Bombs, TOW Hellfire 	 Hellfire	Joint Common Missile

N6 / N7
Naval Warfare

Tomahawk Weapons System
ORD Spiral Development Roadmap



N6 / N7
Naval Warfare

Strike Sensor Roadmap

TODAY	FYDP	2010
LANTIRN Nighthawk APG-65/73	ATFLIR APG-73 RUG 1 AESA	ATFLIR AESA Phase II
TARPS H-60 FLIR ALQ-99	SHARP ICAP-3	SHARP P3I AEA Digital Sys

Stand-Off / Survivability

N6 / N7
Naval Warfare

Network Centric Roadmap

TODAY	FYDP	2010
Link 16 (JTIDS) JSIP-N DE	Link 16 (MIDS) JSIP-N JCA	Link 16 JSIP – Follow on
FTI	CDL-N (SHARP/ATARS/UAV)	CDL-N
TAMPS	TAMPS / JMPS	JMPS
CEC IOC	CEC	CEC / JCTN
CTAPS	CTAPS / TBMCS	TBMCS
	E-6 VLF, MCS, EAM Relay	

GCCS-M / IT-21 / NMCI / Link 4/11 - ▶

JWACS SIPR NET/NIPR NET - ▶

Platform Centric → Network Centric

N6 / N7
Naval Warfare

Summary

- **Precision Strike Initiatives**
  - Task Force-Time Critical Strike
    - » Collect, Engage
    - » ID, Decide, Assign
  - All-Service advanced weapons roadmap
  - Joint Air Dominance Office
- The Air Wing of the present through 2030 will continue to be lethal, flexible and jointly interoperable
- Investment in Future Naval Capabilities and modernization will continue to transform Air Wing composition and capabilities