U. S. Navy Road Ahead
Brief to:
Precision Strike Association
21 January 2004
Joint power from the sea with the advantages of security, immediate employability, and operational independence.
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

PLATFOMS
- 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
- DAGIR/LOGIR
- JCM
- AMRAAM P3I
- AIM-9X

NETWORKS
- Wide Band Network (WBN)
- JSIP-N/Follow-On
- CDL-N
- JMAPS
- 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 MMR (SAR/PD)
- RMP P3I
- AQS-22
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
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
Expeditionary Strike Force -
Carrier Strike Group and Expeditionary Strike Group

![Diagram of Expeditionary Strike Force components]

- **CVBG**
  - CVN
  - CG
  - DDG
  - T-AOE(X)

- **ARG/MEU**
  - DDG
  - CVN
  - SSN

- **CSG**
  - CG
  - T-AOE(X)
  - DDG
  - SSN

- **ESG**
  - LPD
  - LHA
  - LSD
  - ESS
  - SSN
  - DDG

**Key Features**

- Stealth
- Standoff Precision Strike
- Enhanced Intelligence, Surveillance, Recon
- Improved Threat Detection
- Advanced Electronic Attack
- Stealth
- Austere Site Capability
- Imbedded Ground Combat Element
- Standoff Precision Strike

**Maximum Combat Power Forward**
Carrier Evolutionary Strategy

**TODAY**
- Commercial Ship Technologies
  - Integrated Warfare System
- New Electrical Generation and Distribution
- Electromagnetic Aircraft Launch System (EMALS)

**2015**
- New Propulsion Plant
- Advanced Flight Deck Design

**2020**
- 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
Tomahawk Weapons System
ORD Spiral Development Roadmap

**Phase 1**
- FY03
- FY04
- FY05
- FY06
- FY07
- FY08
- FY09

**Tactical Tomahawk AUR**
- TC2S 4.0
- TTWCS v4

**Phase 2**
- TT Torpedo Tube Launch Capability
- SSGN INTEGRATION
- WARHEAD IMPROVEMENT STUDY

**Phase 2 AUR Enhancements:**
- PTAN, Penetrator, Submunition, Payloads, Sensors, Comms/BDII Improvements

**Phase 3 AUR Enhancements:**
- Payloads, Navigators, Comms, High-Speed, Expanded Tgt Set

**TC2S 4.1**
- TTL, DCP II (Support AN/BSG-1 Nuclear), DSMAC IV, B/L III PTAN – small cell
- TERCOM, DB Restructuring, Strike Planning/Coordination Upgrades, Route Planning Upgrades

**TC2S 4.2**
- Strike Planning/Coordination Upgrades, Route Planning Upgrades, Support AUR Enhancements, ITA (TC2S 5.0)

**TC2S 5.0**
- Strike Planning/Coordination Upgrades, Route Planning Upgrades, Support AUR Enhancements, ITA (TC2S 5.0)

**TC2S 5.0**
- Fully Implement Task Centered HCI, Presentation Layer, Strike Plng & Coord. Upgrades, Common TTWS Displays, Digital CFF

**TTWCS v5**
- SSGN, Seawolf/VA Class, TTL, TTWCS+NFCS, ITA (1-3), Common Build, Task Manager, Tactical Decision Aids

**TTWCS v6**

**TC2S 4.0**
- TC2S 4.1
- TTWCS v4

**TC2S 4.2**
- TC2S 4.1
- TTWCS v4

**TC2S 5.0**
- TC2S 4.2
- TTWCS v5
**Strike Sensor Roadmap**

**TODAY**
- LANTIRN
- Nighthawk
- APG-65/73

**FYDP**
- ATFLIR
- APG-73 RUG 1
- AESA

**2010**
- ATFLIR AESA Phase II

**TARPS**
- H-60 FLIR
- ALQ-99

**SHARP**
- SHARP ICAP-3

**Stand-Off / Survivability**
**Network Centric Roadmap**

**TODAY**
- Link 16 (JTIDS)
- JSIP-N DE
- FTI
- TAMPS
- CEC IOC
- CTAPS
- GCCS-M / IT-21 / NMCI / Link 4/11
- JWACS
- SIPR NET/NIPR NET

**FYDP**
- Link 16 (MIDS)
- JSIP-N JCA
- CDL-N (SHARP/ATARS/UAV)
- TAMPS / JMPS
- CEC
- CTAPS / TBMCS
- E-6 VLF, MCS, EAM Relay

**2010**
- Link 16
- JSIP – Follow on
- CDL-N
- JMPS
- CEC / JCTN
- TBMCS

**Platform Centric**

**Network Centric**
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