

# **Developing and Populating the Global Information Grid for Joint and Coalition Operations: Challenges and Opportunities**

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# Developing and Populating the Global Information Grid for Joint and Coalition Operations: Challenges and Opportunities



- Network-Centric Operations
- The Global Information Grid
- The Maritime Context
- The Price of Admission *and* Omission
- Challenges and Opportunities
- Future Signposts to Focus On

**“In today’s world, it is inconceivable that anything could be accomplished outside of coalition operations.”**

**Dr. David Alberts**

**Director, Research and Strategic Planning  
Office of the Assistant Secretary of Defense  
Networks and Information Integration  
Seventh ICCRTS – September 16, 2002**

**“Is there a place for small navies in network- centric warfare? Will they be able to make any sort of contribution in multinational naval operations of the future? Or will they be relegated to the sidelines, undertaking the most menial of tasks, encouraged to stay out of the way - or stay at home?...The “need for speed” in network-centric operations places the whole notion of multinational operations at risk.”**

**Professor Paul Mitchell  
Director of Academics  
Canadian Forces College  
*Naval War College Review* – Spring 2003**

# Network-Centric Operations

**“Network-centric warfare broadly describes the combination of emerging tactics, techniques, and procedures that a fully or even partly networked force can employ to create a decisive warfighting advantage.”**

***Network-Centric Warfare***  
**Office of Force Transformation**  
**December 2003**

# Network-Centric Operations

- Network-centric warfare – new power source
- Focus of CCRTS and ICCRTS
- NCW – Enables a warfighting advantage
- Increasing body of work and metrics



# The Global Information Grid



**“The Global Information Grid is the foundation for network-centric warfare.”**

**Dr. Michael Frankel**

**Deputy Assistant Secretary of Defense**

**C3ISR, Space, and IT Programs**

**Eighth ICCRTS June 17-19, 2003**

# The Global Information Grid

- U.S. “Foundation for network-centric warfare”
- Major investment: \$18B across the FYDP
- US SECDEF Priority:
  - Strengthen combined/joint warfighting capabilities
- US SECDEF New Granularity:
  - Develop the GIG
- ASD NII mandate: “Develop, populate, and protect the Global Information Grid
- U.S. Service architectures must be compatible with the Global Information Grid

# The Maritime Context

**“FORCEnet is the architectural framework for naval warfare that aligns and integrates warriors, networks, sensors, command and control, platforms and weapons into a globally networked, distributed combat force, scalable across the spectrum of conflict from seabed to space and from land to sea.”**

**FORCEnet Campaign Plan  
Office of the CNO and CMC  
June 3, 2003**

# The Maritime Context

- Information sharing in navies – “old hat”
- Blessing and a potential curse
- U.S. Navy Component of the GIG: FORCEnet
- The need for “maritime domain awareness”
- U.S. CNO goal: “A maritime NORAD”
- Immediate coalition implications apparent

# The Price of Admission *and* Omission

**“The significant involvement of coalition forces in Operation Enduring Freedom – including over 100 shops deployed in Central Asia for an extended period – has reemphasized the requirement for improved internet protocol data systems interoperability with allied and coalition forces.”**

**Admiral Robert Natter**

**Commander, Fleet Forces Command**

**SSC Charleston *Combat Clips***

**Summer 2002**

- Coalition concerns – the price of *admission*
- U.S. realities – the price of *omission*
- Issue actively discussed at the working level
- Slowly working its way to the leadership level



# The Importance of Connectivity

## Spring 02: Ships: 91 (31 US / 60 Coalition)

**SPS SANTA MARIA (FFG)**  
**SPS NUMANCIA (FFG)**  
**SPS PATIÑO (AOR)**



### IRAQI MIO

ELLIOT (DD)  
 THE SULLIVANS (DDG)  
 HMAS MANOORA (LPA)  
 HMAS CANBERRA (FFG)



### OPS ARABIAN GULF

PEARL HARBOR (LSD)  
 ARDENT (MCM)  
 DEXTROUS (MCM)  
 OGDEN (LPD)



### LIO

HNLMS P VAN ALMONDE (FFG)  
 FS SURCOUF (FFG)  
 FS DEGRASSE (DDG)  
 FS SOMME (AOR)  
 FS SURCOUF (FFG)  
 HMCS TORONTO (FFH)  
 HMCS IROQUOIS (DDG)  
 ITS DE LA PENNE (DDG)  
 ITS MAESTRALE (FFG)



### IMPORT BAHRAIN

CARDINAL (MHC)  
 RAVEN (MHC)  
 CATAWBA (TATF)  
 HS PSARA (FFG)



### ENROUTE SOH

FS CHARLES DE GAULLE (CVN)  
 FS CASSARD (DDG)



### IMPORT JEBEL ALI/ DUBAI

FLINT (TAE)  
 HMAS NEWCASTLE (FFG)



### IMPORT MUSCAT

RBNS SABHA (FFG)



### EXERCISE SHAREM

BOISE (SSN)  
 DECATUR (DDG)  
 LAKE CHAMPLAIN (CG)  
 HMS PORTLAND (FFG)



### LOGISTICS ESCORT

JDS HARUNA (DDH)  
 JDS SAWAGIRI (DD)  
 JDS SAWAKAZE (DDG)



### NAS STRIKE/ESCORT

JOHN C STENNIS (CVN)  
 PORT ROYAL (CG)  
 JOHN F KENNEDY (CV)  
 VICKSBURG (CG)  
 HMCS VANCOUVER (FFH)  
 HMCS PRESERVER (AOR)



### NAS ARG/ESCORT

BONHOMME RICHARD (LHD)  
 JARRETT (FFG)  
 HMS OCEAN (LPH)  
 HMS YORK (DDG)  
 RFA SIR PERCIVALE (LSL)  
 RFA SIR TRISTRAM (LSL)



### LOGISTIC SUPPORT

BRIDGE (AOE)  
 CONCORD (TAFS)  
 JOHN LENTHALL (TAO)  
 PECOS (TAO)  
 SEATTLE (AOE)  
 SPICA (TAFS)  
 RFA BAYLEAF (AO)  
 RFA DILIGENCE (AR)  
 RFA FORT AUSTIN (AFS)  
 RFA FORT GEORGE (AOR)  
 RFA FORT ROSALIE (AFS)  
 FS SOMME (AOR)  
 JDS TOKIWA (AOE)  
 JDS TOWADA (AOE)  
 HMCS PRESERVER (AOR)  
 FGS SPESSART (AOL)



### NON-OEF TASKING

FS AIGLE (MHC)  
 FS DAGUE (LCT)  
 FS D'ENTRECASTEAUX (AGS)  
 FS FLOREAL (FFG)  
 FS ISARD (AG)  
 FS JULES VERNE (AD)  
 FS LA LAVALLEE (FFG)  
 FS LOIRE (AG)  
 FS SIROCO (LSD)  
 FS VAR (AOR)  
 FS VERSEAU (MHC)  
 HMS SPLENDID (SSN)



### IMPORT DJIBOUTI

FGS DONAU (ARL)  
 FGS GEPARD (ARL)  
 FGS HYAENE (PCFG)  
 FGS MAIN (ARL)  
 FGS PUMA (PCFG)  
 FGS FRIEBURG (ARL)



### MEUX DJIBOUTI

WASP (LHD)  
 OAK HILL (LSD)  
 TRENTON (LPD)



### ENROUTE OUTCHOP

HMS SCOTT (AGS)



### HOA OPS

HUE CITY (CG)  
 FGS BUSSARD (PCFG)  
 FGS EMDEN (FFG)  
 FGS FALKE (PCFG)  
 FGS KÖLN (FFG)  
 HNLMS VAN AMSTEL (FFG)  
 HMS CAMPBELTOWN (FFG)  
 FS SAPHIR (SSN)



### OPS CENTCOM AOR

SALT LAKE CITY (SSN)  
 SPRINGFIELD (SSN)



### IMPORT SEYCHELLES

FGS BAYERN (FFG)



# Challenges and Opportunities

**“Achieving shared situational awareness with allies and partners will require compatible information systems and security processes that protect sensitive information without degrading the ability of multinational partners to operate effectively with U.S. elements.”**

***The National Military Strategy***  
**May 2004**

**“FORCEnet will be developed and delivered to function in a Joint/Allied/Coalition/Interagency environment and associated architectures, systems and doctrine must focus on interoperability.”**

**FORCEnet Campaign Plan  
Office of the CNO and CMC  
June 3, 2003**

**“The United States is unlikely to hamstring its own military forces or slow its implementation of network-centric warfare given its obvious benefits. It may decide simply to ‘pass’ entirely on alliance participation.”**

**Professor Paul Mitchell**

**Director of Academics**

**Canadian Forces College**

***Naval War College Review – Spring 2003***

**“Not only will allies have little to contribute to a come-as-you-are party, they won’t be able to track the course of the conversation.”**

**Professor Tom Barnett  
United States Naval War College  
The Seven Deadly Sins of NCW  
U.S. Naval Institute Proceedings  
January 1999**

# Challenges and Opportunities

- Does the U.S. “slow down?”
- Does the coalition “speed up?”
- Technical and policy issues
- “Chicken and egg” effect
- Progress on policy issues – releasability
- Propitious time to address technical issues

# Future Signposts to Focus On



**“Strengthening regional alliances and coalitions helps to create favorable regional balances of power that help to bring pressure to bear on hostile or uncooperative regimes.”**

***The National Military Strategy***  
**May 2004**

**“The United States wants its partners to be as interoperable as possible. Not being interoperable means you are not on the net, so you are not in a position to derive power from the information age.”**

**VADM Art Cebrowski**

**Director, Office of Force Transformation**

***Military Transformation, A Strategic Approach***

**Fall 2003**

# Future Signposts to Focus On

- U.S. Navy FORCEnet design parameters
- Defense Exchange Agreements
- CNO Staff – N61 – focus on interoperability
  - ASCANNZUKUS
- Office of the Secretary of Defense
  - TTCP
  - CWP
- Joint Forces Command – NATO Transformation EA

**Questions?**