



**Program Executive Office  
Command, Control, Communications, Computers and  
Intelligence (PEO C4I)**

**Communications Program Office (PMW/A 170)**

Satellite Industry Association's  
2012 Naval & Maritime Commercial SATCOM Users' Workshop

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# Agenda



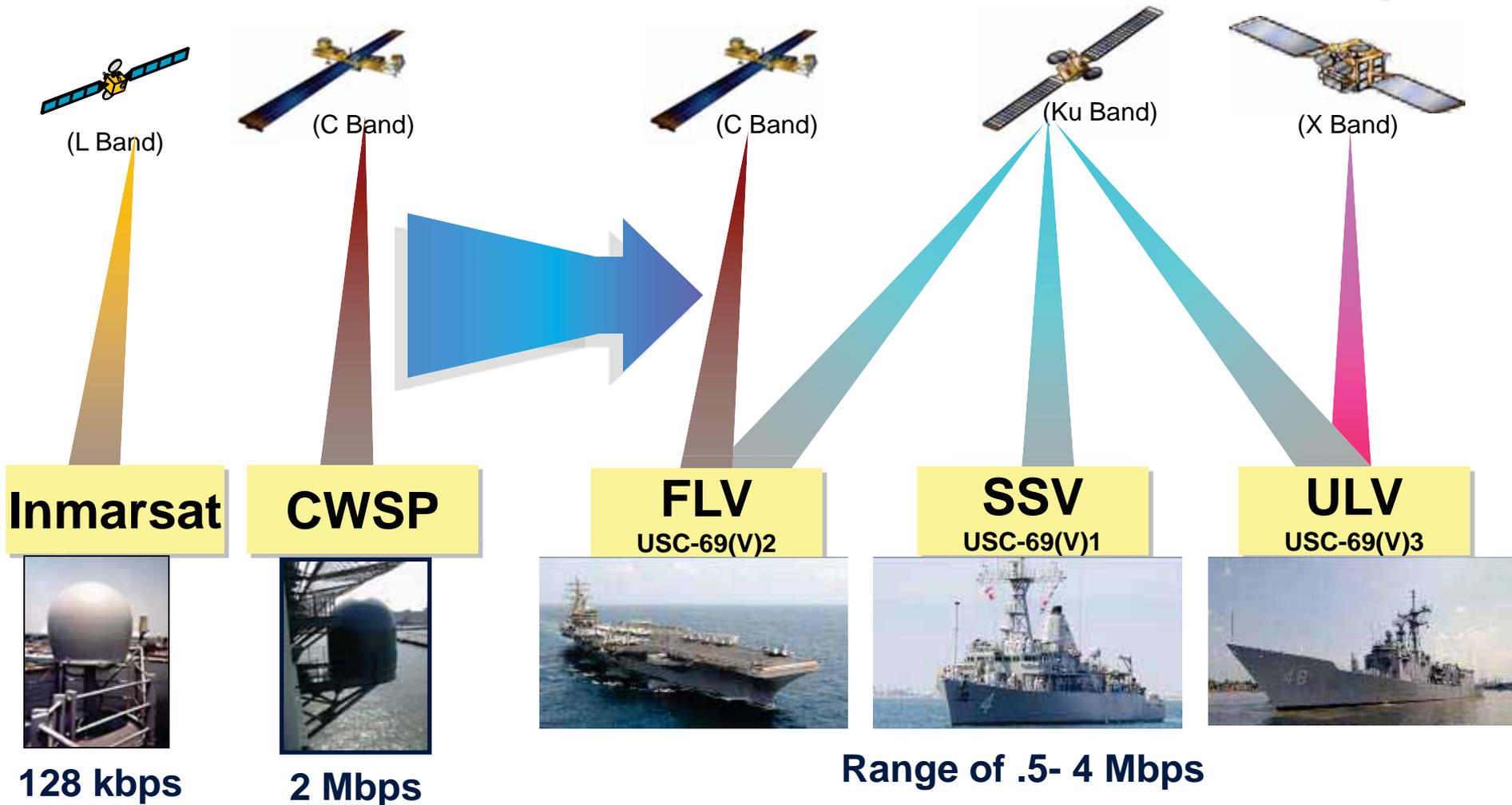
- SATCOM Migration
- Commercial Broadband Satellite Program (CBSP) Overview
- Commercial SATCOM Contracting Strategy
- Commercial SATCOM Future Goals
- Summary
- Points of Contact



# Navy SATCOM Migration



## Commercial Broadband Satellite Program





# Program Description

## CBSP



- **Mission Statement:**

- CBSP replaces Inmarsat (PCs) and Inmarsat B HSD (MCMs, DDGs, CGs) and WSC-8 (Large Decks) as the Navy's COMSATCOM program of record. The associated architectures are designed to significantly increase throughput of data and increase SATCOM reliability by providing redundancy for MILSATCOM

- **Requirement:**

- 230 ships ranging from Patrol Craft to Aircraft Carriers

- **Description:**

- Variants:
  - (SSV) Small Ships (PC, MCM)
  - (ULV) Unit Level Ships (CG, DDG, FFG, LPD-4, LSD, LCS, HSV)
  - (FLV) Force Level Ships (AS, CVN, LHA, LHD, LCC, LPD-17, T-AH)
- Commercial SATCOM includes C, Ku, and X







# Navy COMSATCOM Contracting Strategy



## **Navy has implemented a performance based contract, transferring risk management to the service provider**

- Single vendor responsible for end-to-end services
- Realizes volume discounts and economies of scale
- Includes network operations, protection, and near real-time monitoring requirements
- Bandwidth portability and short term surge capacity lease options
- Simplified recovery process due to vendor's responsibility to reconstitute the capability



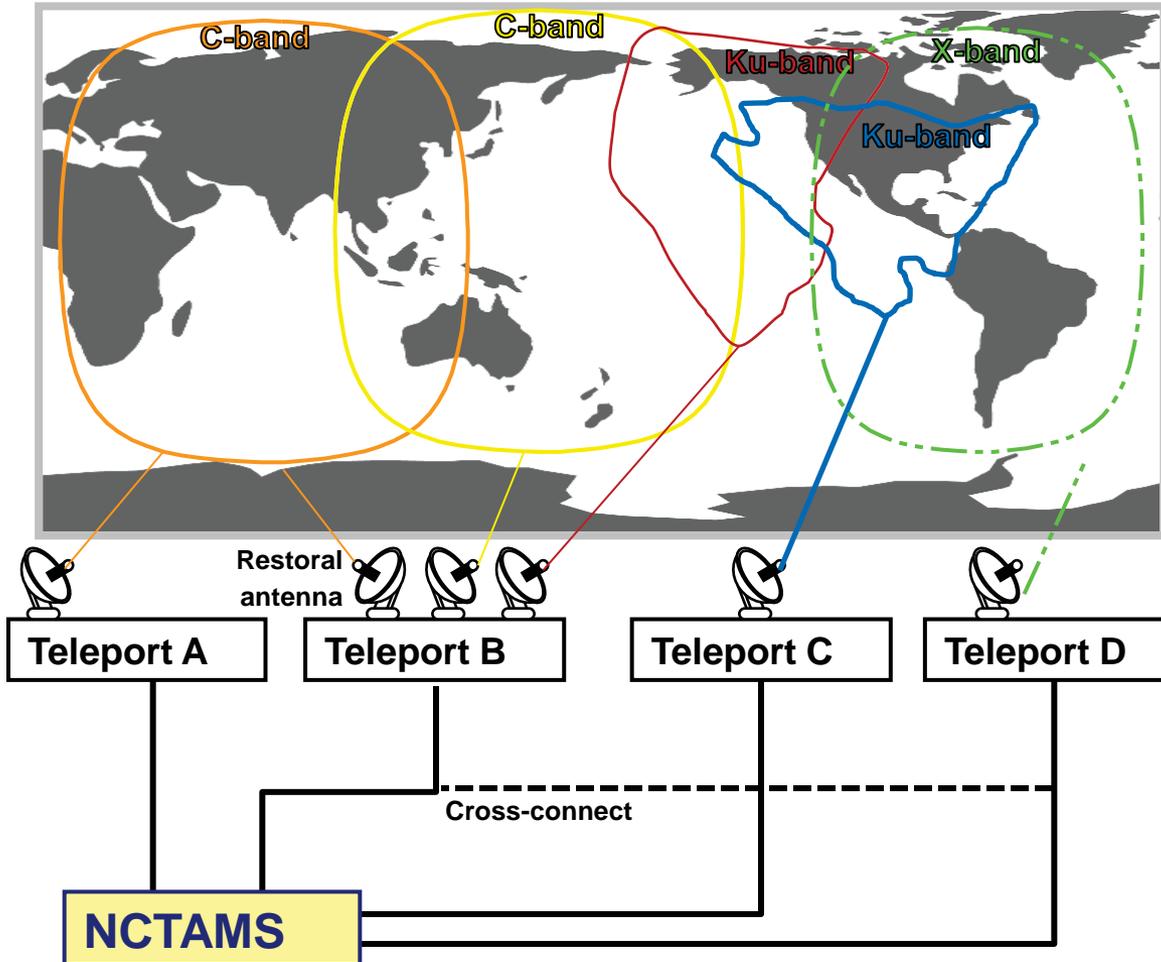
# CBSP Contract Flexibility



- CBSP Services Contract expires May 2015
- Contract flexibility enables other users/countries to order bandwidth and services
  - Leverages economies of scale
- Bandwidth ordering process
  - Customer provides space segment and backhaul connectivity requirements (if applicable) to CBSP Office
    - Contract supports Commercial C, X, Ku and terrestrial connectivity
  - Customer outlines band and throughput requirements
  - Vendor provides a link budget analysis and cost estimate
  - Customer sends funds to DITCO
  - DITCO places the service on contract



# CBSP Innovative Design for Enhanced Reliability

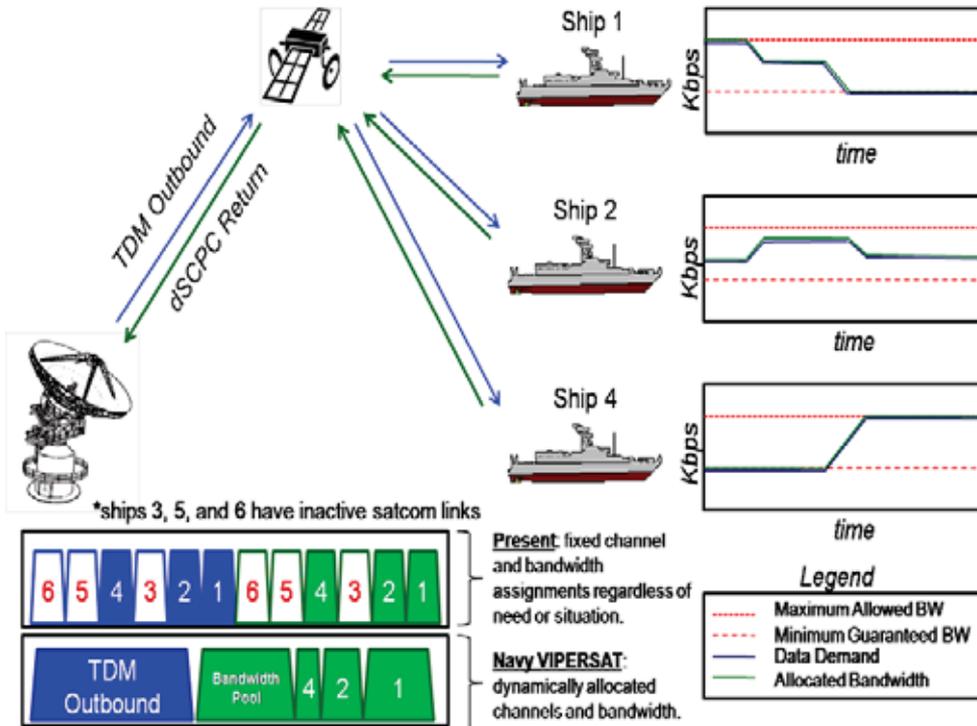


- Multiple teleports and satellite solutions
- Multiple frequency bands and multi-band terminals
- Redundant terrestrial infrastructure

Performance based contracts incentivize the contractor to design solutions that meet the Navy's requirements for reliable, non-preemptive services 24/7



# Future Goal: Automatic Bandwidth Management



- Navy VIPERSAT Management System (VMS)
  - Demand driven dynamic bandwidth allocation to achieve threshold throughput rates
  - No sailor management required/fully automated
  - Combined with a steerable spot beam capability, a carrier strike group can dynamically share bandwidth while transiting across regions and into remote locations

Today I have what bandwidth I get. Tomorrow I automatically get what bandwidth I need when I need it.



# Future Goal: Aircraft Solutions



- PEO C4I and NAVAIR investigating long term SATCOM communications capability for Navy VIP aircraft
  - Hardware and lease solution to support (5) C-37/C-20 Gulf Stream Aircraft
- Effort planned to fall under CBSP Program of Record (POR)
  - Decreases acquisition time and leverages existing POR documentation and capabilities
- Goal is to improve performance and provide Naval Senior Leadership with reliable in-flight tactical communications capability
  - NIPR/SIPR data rate requirement
    - Threshold: 256 kbps
    - Objective: 16 Mbps

**Navy leveraging speed and flexibility of CBSP solution**

# CBSP Fleet Feedback

## Fleet Feedback

- Crew of USS Champion (MCM 4)
  - “We’ve been able to maintain high speed connectivity for mission tasking and provide a separate data pipe for our partner nation riders to access their professional and personal websites/email.”
  - “CBSP SSV is a significant improvement in capability and reliability. It’s the first time I have been able to surf the SIPRnet (Secret Internet Protocol Router Network) while at sea.”
  - “Overall the system has been performing great and has added capability and performance for the ship.”





# Summary

- Importance of Commercial SATCOM
  - Provides augmentation to Military SATCOM allocation
  - Commercial SATCOM plays critical role in warfighting arsenal
- Continue/improve on current capabilities
  - Fully automated bandwidth management system
  - Real-time, integrated bandwidth and network management web tool which enables proactive and predictive management of resources
  - Performance based, vendor guaranteed space and terrestrial network
- Leverage emerging technology
  - Overarching Navy Commercial SATCOM coverage requirement
    - Agile beam high rate Earth coverage