



MILCOM PANEL: “Tactical Networking”

Baltimore, MD



BG Michael Williamson
JPEO JTRS
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JPEO JTRS

INTRODUCTION

Military Communications Interoperability Challenges



In Vietnam, "the scarcity of interoperable communication equipment severely hampered operations, especially in close air support operations."

Richard Davis
General Accounting Office (1986)



In Grenada, "we did not have the interoperability with the Army and the Air Force...."

So consequently, we could not make the installed communications work."

Admiral Joseph Metcalf,
US Navy Vice Admiral



Operation Desert Storm demonstrated that tactical communications are still plagued by incompatibilities and technical limitations. At CENTCOM corps and wing levels, a significant portion of the war was conducted over commercial telephone lines because of the volume and compatibility limitations of the military communications system... Communications were worse in the field...

Former Secretary of Defense Les Aspin and Former Representative William Dickinson –OSD Report
1992



In Afghanistan, "The communications problems that I understood to have happened during [Operation Anaconda] were mainly terrain-driven."

Background briefing by senior military official

1960s-1970s

1980s

1990s

Today

A Complex and Evolving Environment

“The United States faces a complex and uncertain security landscape in which the pace of change continues to accelerate” QDR, Feb 2010

“Rules of the Road” to be discussed between US and China over space. China is developing a broader range of space-borne capability to ward off adversaries, to include jammers and lasers... Reuters, Jul 19, 2011

Assured Data & Communications



Prevent, Deter & Prevail



Defend the US & support Civil Authorities



Force Protection: Counter-IED



*North Korea launches electronic attacks on South Korea
North Korea... trying to jam comms. signals across border, where US and South Korea are holding a major joint exercise. Armed Forces Press, March 8, 2011*

*US Military Joins in Japan Quake Relief Effort
U.S. military forces stepped up relief activities in support of Japanese efforts to cope with humanitarian crisis. Wall Street Journal, March 14, 2011*

Build Security Partnerships



Succeed in Counterinsurgency, Stability & Counterterrorism

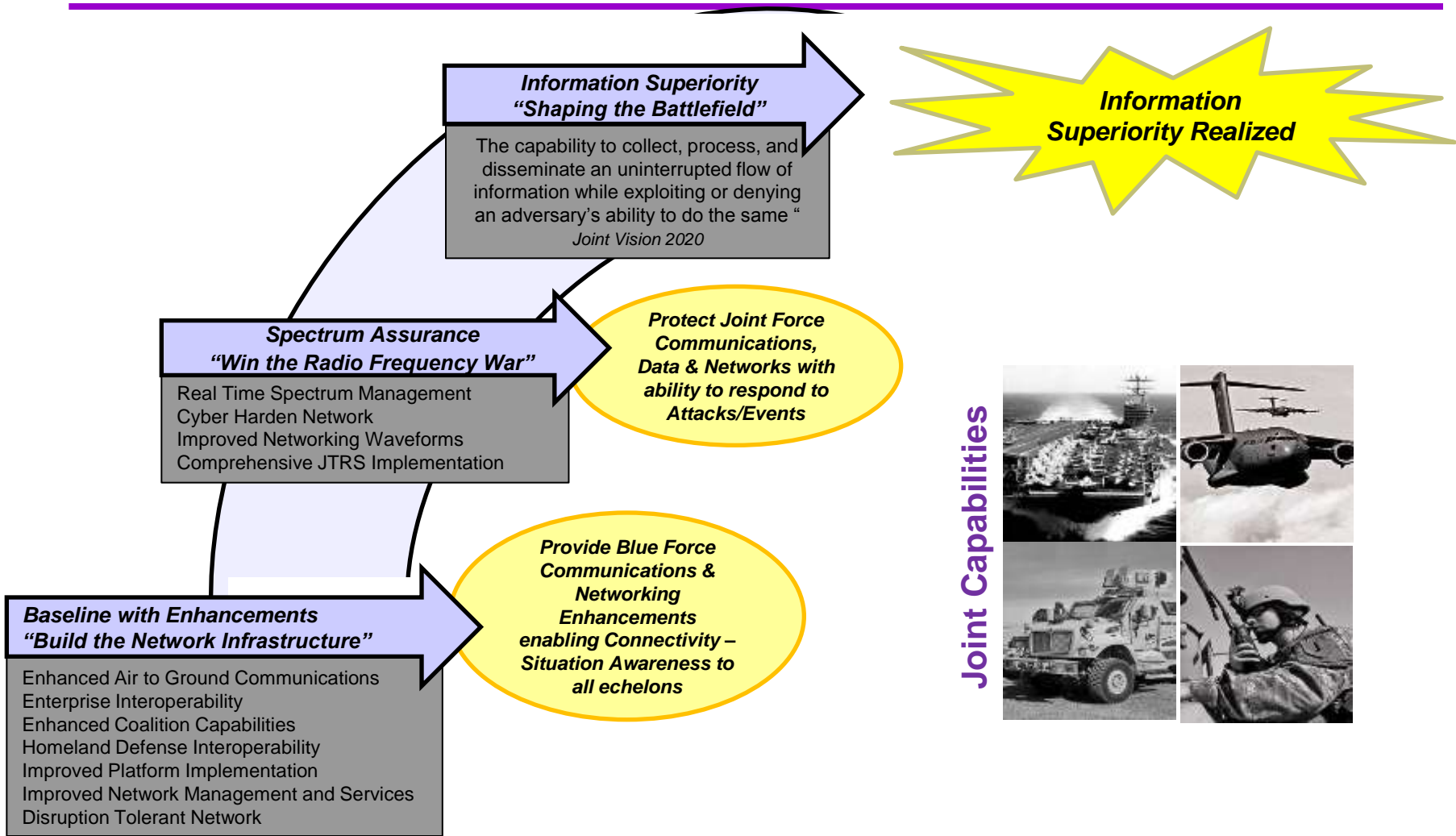


*IED attacks in Afghanistan more lethal
Attacks on U.S. and allied forces with makeshift bombs in Afghanistan are 50% more lethal than three years ago. USA Today, Mar 19, 2010*

Global Partnership Works to Increase African Maritime Safety DOD Live, June 2, 2011

Deliver interoperable Joint networking capability to meet DoD critical Joint Forces Networked Communications Requirements for the 21st century

“Joint Operational Capabilities”



Incremental approach delivers Information Superiority

Challenges

- ▶ **Delivering capability today while continuing to build the interoperable foundation going forward**
- ▶ **Development cost growth**
 - Zero tolerance, particularly in the current budget environment
- ▶ **Platform integration & initial cost estimates**
 - How can we mitigate?
- ▶ **Information Assurance/Cyber-security**
- ▶ **Spectrum Availability**
- ▶ **Technology Refresh in a Fiscally Constrained Environment**
- ▶ **Shared Vision for Designing Network Architecture**
- ▶ **CONOPS Employment of Evolving Network Capabilities**
- ▶ **COALITION ISSUES: Barriers to Export**
 - Third Party License Fees
 - “Releasability” of IP Waveforms

SUMMARY

RECAP: Why Do Warfighters Need Continuing Innovation?

Ever-Changing Threats

**Increasingly
Sophisticated
Adversaries**

Extreme & Hostile Environments

Leaner Defense Budgets Ahead

Industry & Government Must Balance Agility-Security-Interoperability-Affordability-Competition