

Space Symposium Outline – Broadmoor, Colorado Springs, CO

General Hyten, Sir,

On 12 April 2016, you are scheduled to speak at the Space Symposium. Time allotted for speaking is 30 minutes with no Q & A. There will be approximately 600 personnel in the audience including senior military leaders, industry executives, and government representatives. There will be a lapel microphone. Multiple media outlets have been invited. Uniform is service dress.

Introduction [SLIDE 1]

- Thank you, great to be here this afternoon
- Multi-Domain video
 - Space & Cyber integration has become seamless
 - Our Airmen, Sailors, Soldiers & Marines make it look easy
 - The end scenario keeps me up at night
 - The integration can be taken away easily by a determined adversary

Threat Focused Enterprise [SLIDE 2]

- This is a picture of Pararescue-Jumpers (PJs)
 - Their operations environment is defined by threats
 - They fly into hot landing zones in order to save others
 - They understand and focus on threats because it is the difference between life and death
- The Space Domain is threatened by adversary capabilities too
 - Threats not the same, but equally dangerous to Air Force core missions
- To protect our ability to conduct multi-domain ops, we must change the way we operate in space
 - We can no longer Command and Control on timelines of days and weeks
 - We can no longer build/operate stove-piped systems
 - We can no longer train satellite maintainers
 - We can no longer take 10-15 years to design, build & launch capabilities

Multi-Domain Operations – Multi-Domain Airmen [SLIDE 3]

- This is Capt Kristen Wolfe

- In the not so distant past, I would have told you how space and cyber support her flight ops
- But now all domains can support or be supported by any other domain
 - AWACS Air Battle Manager
 - GPS Operators
 - KC-135 Pilot
 - 36th Electronic Warfare Squadron – Programmable Sensors (mission data)
 - Wingman's Sensors over Aerial Networks
- Multi-Domain Ops is the future of the Air Force
 - Our dominate advantage on the battlefield
- Fly, Fight & Win in Air, Space and Cyberspace
- Not a Space Guy, Not a Cyber Guy
 - We are all Airmen
- 25th Anniversary of Operation DESERT STORM
 - First Space enabled war
 - Adversaries took notice of our advantage
 - Actively trying to take away our advantage
- We must protect our ability to conduct Multi-Domain Operations

Organizing, Training & Equipping a Resilient Enterprise [SLIDE 4]

Organize: JICSpOC [SLIDE 5]

- Experimenting with threat scenarios
 - Determine “relevant timelines”
- Help us think/fight in contested domains
- Completed Experimentation Periods 1-3
 - Period 4 to begin in mid-May
- Started from scratch
 - Whiteboards were the most effective tool in experiment 1
- First & most important lesson learned
 - Must work together and integrate w/ IC
 - Need an unprecedented level of unity of effort
 - DoD & IC sensors integrated to create I&W/SA/Intel
- Helping to re-envision new infrastructure & ground architecture
- Creating new Concept of Operations

Organizing, Training & Equipping a Resilient Enterprise [SLIDE 6]

Train: Space Mission Force [SLIDE 7]

- Twin Crew Forces
 - Blow up the traditional “back shops”
 - Maintain ops focus
 - Build cyclical “debrief” process to collect lessons learned
 - Don’t just “collect” problems – learn from them
 - Identify problem/threat
 - Find root cause(s)
 - Create and train fix actions/TTP
- Build warfighter knowledge through evolving, advanced training
 - Threats
 - Environment
 - TTP
 - Advanced Weapon Systems knowledge
- Pathfinder at 50th SW
 - Several positive indicators we are moving in the right direction
 - Putting advanced skills of weapons officer to better use
 - Crew assessments – learning to respond as a team
 - Confirming lessons learned at JICSpOC...need better intel
 - Only a few negatives
 - Current trainer unable to provide realistic threat environment
 - Standardizing advanced training quality
 - Civilian, Contractor, Reserve/Guard force structure

Organizing, Training & Equipping a Resilient Enterprise [SLIDE 8]

- Space Enterprise Vision
 - Changes the way we acquire, operate, and think about space capabilities

Threat Focused Space Enterprise Vision [SLIDE 9]

- Currently operating numerous disparate, stovepiped capabilities
 - Built to increase longevity in a benign environment
 - Unable to communicate or share data with each other
 - Incapable or unprepared to respond to threats
- Resilience Capacity – Ability to respond to threats

- Move away from “Functional Availability”
- New metric to characterize and evaluate capabilities
- Changing how we determine, develop, acquire, sustain, and operate space systems
- Our 2030 space enterprise must revolve around Resilience Capacity and our ability to stay ahead of threats
 - Increased, integrated I&W, Intel & SA
 - Layered defenses to respond to full spectrum of threats
 - Force Packaging
 - Multi-Domain response options
 - Faster refresh rates
 - Data Driven Analytics
 - Operate on tactically relevant timelines
 - Ability to operate and deliver effects in CDO domain
- We must build an enterprise that is disruptive to any adversary trying to take away our advantages on the battlefield

Equip: New Space Fence [SLIDE 10]

- We must find ways to field capabilities faster than adversaries can adapt
 - No more “Big Bang” deliveries
- Provide capabilities better suited for CDO environment
 - Functional Availability vs Resilience Capacity
- Break down stove pipes
 - Minimum Essential Warfighter Requirements
 - Enterprise view of capabilities
- Disciplined adherence to requirements
- Space Fence
 - S Band Phased Array vs VHF for Greater fidelity
 - Basketballs vs Softballs
 - Increase number of tracked objects tenfold (from ~23,000 to 100,000-200,000)
 - Increase our capability to provide predictive and actionable space situational awareness
 - Minimizes adversary maneuver space
- Prototyping made Space Fence a success
 - Reduced risk
 - Proved Technology

- Refined Essential Warfighter Requirements
- Program on time, on budget!

Equip: Enhanced BMC2 Systems [SLIDE 11]

- Must react on operationally relevant timelines
- Use Intel/I&W/SA to build Space Common Operating Picture
- Enable Force Packaging
- Enterprise ground systems
 - Automation
 - Data Sharing
 - Robust backup capabilities
 - Cyber Security
- Unity of Effort

Conclusion [SLIDE 12]

- Organize, Train, and Equip a resilient enterprise
- These are not separate efforts
 - Each relies on the others for success