Future Combat

FRANK GORENC
General (ret) USAF
- DETERRENCE
- COLLECTIVE DEFENSE
- CRISIS MANAGEMENT
- COOPERATIVE SECURITY

- LETHALITY
- PARTNERSHIPS/ALLIANCES
- ACQUISITION REFORM

"Persistent"
"Penetrating"

Air & Space Superiority → Global Strike
Global Mobility
C2
ISR

Organize → Train → Equip → Deploy → Employ
FIND → FIX → TRACK → TARGET → ENGAGE

ASSESS
Planning

Strategic ...
Operational ...
Tactical
Strategy

- China/Russia
- Korea/Iran
- Terrorism

Technology

- Hypersonics
- Directed Energy
- AI/Data

CONOPs

- Interoperable
- Network-Centric
- Distributed

- Space
- Multi-Domain Ops
- Land
- Cyber
- Under Sea
- Interoperable

- Escalate
- To Deescalate
- Hybrid
- A2/AD
- Under Conflict Threshold

- Cruise Missiles
- Ballistic Missiles
- Stealth

NSS
NDS
NPR
MDR
“Restore Western Overmatch”

- (AI) Artificial Intelligence
- Machine Learning
- Robotics
- Big Data Analysis
- Autonomous Learning Systems
- Human-Machine Collaborative Decision-making
- Assisted human operations
- Advanced manned-unmanned systems operations
- Networked autonomous weapons
- High Speed Projectiles

- Hypersonics
- Space
- Directed Energy
- (FNC3) Fully Networked Command, Control & Communications
- Cyber
- AI/Machine Learning
- Quantum Science
- Microelectronics
- Autonomy

2018 USD (R&E) 9 key modernization areas
Data ... Knowledge ... Wisdom
Future Combat

• Strategy ... Asymmetries abound
  – Deterrence ... then combat ops
  – Near Peer Existential or Not?
  – Threat or capability based
  – Fiscally informed ... cost matters

• Multi-domain Operations

• Embrace Technology but remember ...
  – Targeting
  – Comm/Links/Data Management
  – Policy/Guidance
  – CONOPs/TTPs
  – Security
  – Manned vs Unmanned

Accept the “Realities”

• The Power Reality ...
  – NATO potential power is not real power

• The Transition Reality ...
  – When deterrence fails, prompt consensus is pivotal, collective defence must be decisive

• The Threat Reality ...
  – The enemy has a vote and could choose war

• The Force Reality ...
  – NATO forces must be ready, deployable and sustainable to be fully combat capable
QUESTIONS