



# Operational Environment and Threats

## Global EOD Symposium & Exhibition

1-3 August 2016

Operational Environment Enterprise  
DCS, G-2 TRADOC



# The Emerging Operational Environment

## Threat Considerations

- Electronic Warfare
- Integrated Air Defense
- Counter Space & PNT
- Cyber & Social Media
- Recon-Info-Strike Complex
- Extensive use of UAVs
- Massed Artillery & Forces
- Protection
- Proxies
- Deception & Ambiguity
- CBRNE/WMD

## Four (+1)



Near Peer Competitor



Regional Actor (Nuclear)

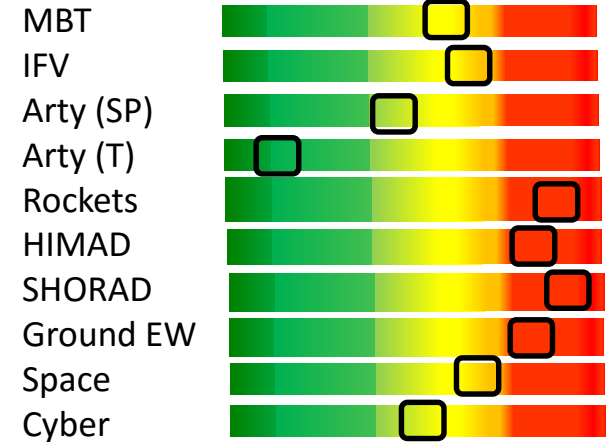


Regional Actor (Non-Nuclear)



Radical Ideologue

## Potential for Conventional Overmatch



## OE Trends

Speed of Human Interaction

Demographics & Urbanization

Economic Disparity

Resource Competition

Science & Technology

Strategic Posture



## Potential Game Changers



Laser Weapons



Synthetic Bio



RF Weapons



Internet of Things



Energetics



AI/Robotics



Power



Chem / Bio Weapons



EDKEW (Rail Guns)

3rd Offset is essential to keep pace...increase emphasis on game changing technologies now!





# Significant Events: State and Non-State Owned Improvised CBRN



Chemical: Iran-Iraq War



Chemical: Japan – Aum Shrinkyo, Sarin Gas



Radiological: UK-murder of Alexander Litvineko by ingestion of polonium -210



Chemical: ISIL- mustard gas in Iraq & Syria

1980

1987

1994

2001

2006

2013

2016



Radiological: Russia – Chechen rebels attached isotope cesium -137 to an IED with a dynamite main charge

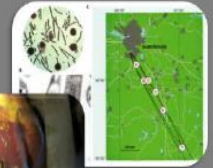


Biological: US – Anthrax letters



Chemical: Syria – Barrel Bombs

CBRN/WMD:  
Proliferation throughout  
the world



TRADOC G-2 Operational Environment Enterprise (OEE)

UNCLASSIFIED//FOR OFFICIAL USE ONLY/  
REL TO USA, FVEY, NATO

WMD in their various forms have been around for a number of years; their improvised counterparts are a relatively recent addition and all will be present in the Operational Environment well into the Future



# Conclusions



*... Increasing Capable Adversaries*



*... Employing disparate organizations*

*... Across a Range of Weapons Capabilities*



**Conventional Weapons**



**Improvised Weapons**



**Chemical, Biological, Nuclear Weapons**

*... With increasing potential to achieve technological advantage*



*... Utilizing physical terrain, cyber, and the human dimension*





# *Discussion*