



# **The Failing of Strategic Deterrence and Resilience:**

**2019  
NATO Deterrence &  
Assurance  
Symposium**

## **Contemporary Implications for NATO**

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# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

## TWO QUESTIONS:

- ***Has the West become characteristic of Chamberlin allowing Tyrants to become Titans out of fear of escalation and hope for moderation?***

Vladimir Putin (Russia)  
Xi Jin Ping (China)  
Sayyid Ali Hosseini Khamenei (Iran)  
Kim Jung-un (North Korea)  
Recep Tayyip Erdogan (Turkey)  
Bashar al-Assad (Syria)  
Other?



- ***If we encounter Tyrant or Titan – can the West survive present state?***



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

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## CONSIDER THE FOLLOWING:

- **Inaction can be as powerful as action . . .**

“At the apogee of its power, the United States finds itself in an ironic position. In the face of perhaps the most profound and wide-spread upheavals the world has ever seen, it has failed to develop concepts relevant to emerging realities.”

- Henry Kissinger, 2001

- **There are no paradigms . . .**

“Really smart people with reasonable funding can do just about anything that doesn’t violate too many of Newton’s Laws!”

- Alan Kay, Computer Scientist

**THE DIFFERENTIATING FACTORS ARE ALWAYS: (1) LEADERSHIP AND (2) INNOVATION**



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

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## Strategic Threat Climate: Present & Future

- Root: Both ideological and religious
  - Bi-polarity fractures: awkward and restless shapes
    - Growing nuclear black market, wide proliferation of nuclear technology 40+ states (Dr. Mohamed ElBaradei, 2004, IAEA)
    - Mistrust and suspicion
  - Technology & innovation may give potency to small factions and weak states to achieve desired ends
  - Principal strategies: Gray zone warfare - novel (EMP, WMD, cyber, terrorism, proxies, propaganda, other)



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

## Strategic Threat Climate: Bottom Line

- US Special Operations Command:
  - *Trends in the strategic environment are speeding the redistribution of power across a range of actors (translation: “democratization of capability”)*
  - *Rapid power shifts are creating potential energy in the international order*
  - *Power shifts happen more rapidly than the “privileges” that came with that power*
- Such are manifesting in the gray zone where costly long wars can be bypassed



Idle Rock, Brimham Rocks - England



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

- Deaths by terrorism since 9/11

1 to 50+ 50 to 100 100 to 200 200 to 1000 1000+ deaths





# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

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## **Aggressors have always gambled on knockouts:**

*A first battle catching the enemy by surprise and inflicting a blow from which there could be no recovery could help avoid a long war. This was the 'allure of battle' [or strategy] that led to states gambling on aggression. Few states knowingly entered into an attritional long war.*

- Sir Lawrence Freedman, Professor, King's College London, [The Future of War](#)



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

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*Would a military or even a nation predicate its entire defense on one plan/strategy?*





# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT



**German Army marching on Paris 1940**

David Stuckenberg, Maj, USAF



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

Cold War Envelope	Gray Zone Envelope
<ul style="list-style-type: none"><li>• <b>States safeguarded:</b><ul style="list-style-type: none"><li>• Technology to create &amp; deliver weapons</li><li>• Accidents</li><li>• Misjudgments</li><li>• Un-authorized launch</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>States no-longer guarantee:</b><ul style="list-style-type: none"><li>• Technology to create &amp; deliver weapons</li><li>• Accidents</li><li>• Misjudgments</li><li>• Un-authorized launch or use</li></ul></li></ul>
<ul style="list-style-type: none"><li>• <b>Limited threat vectors (few states had strategic weapons)</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Expansive threat vectors (multiple states have both nuclear weapons &amp; tech)</b></li></ul>
<p><b>SUMMARY:</b> Accountability, control, and communications with attribution both assumed and provided by early warning</p>	<p><b>SUMMARY:</b> No accountability, poor control, comms with some states; attribution unlikely due to novel delivery and degraded early warning &amp; NTMs</p>

# Expanded Strategic Threat Envelope

*Red = strategic defense gaps*

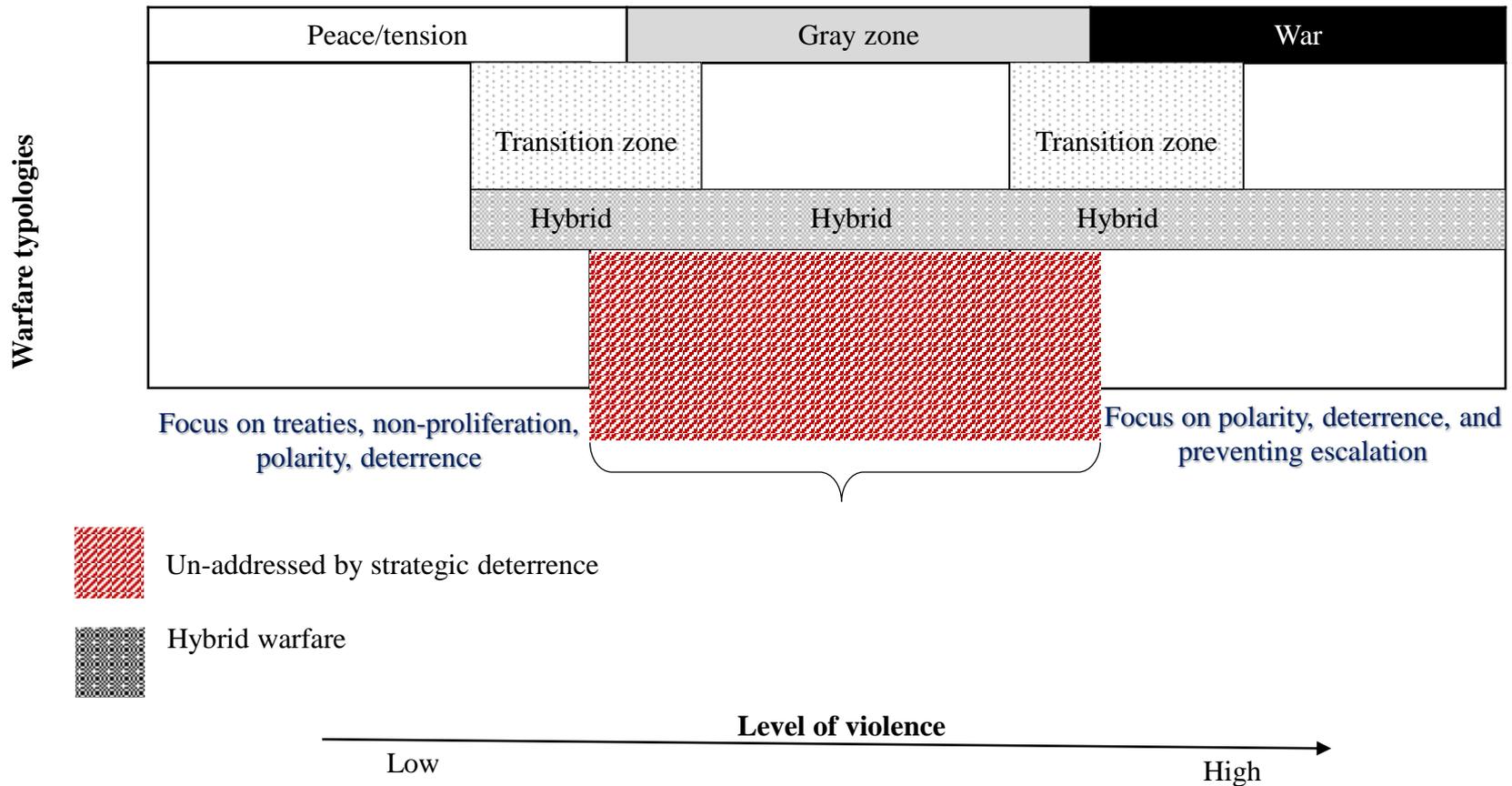
Cold War Envelope (Symmetric & Conventional)			Gray Zone Envelope (Asymmetric & Unconventional + Symmetric & Conventional)				
<ul style="list-style-type: none"> <li><b>Actors:</b> State on state, or states on state</li> </ul>			<ul style="list-style-type: none"> <li><b>Actors:</b> State on state, states on state, <b>state on non-state, state on proxy, state on pseudo-state, any combination of one or more (i.e. Syria)</b></li> </ul>				
<ul style="list-style-type: none"> <li><b>Threat Types:</b> nuclear, radiological, chemical, limited electromagnetic pulse, and limited biological</li> </ul>			<ul style="list-style-type: none"> <li><b>Threat Types:</b> Cold War + <b>electromagnetic pulse, biological, space, WMD and cyberspace</b></li> </ul>				
Delivery Domains & Modes: (held by states & covered by treaties)			Delivery Domains & Modes: (held by both states and non-states not covered by treaty)				
<b>Air:</b> <ul style="list-style-type: none"> <li>Bomber</li> <li>ICBM</li> <li>Missile†*</li> </ul>	<b>Land:</b> <ul style="list-style-type: none"> <li>GLCM</li> <li>Mobile</li> </ul>	<b>Sea:</b> <ul style="list-style-type: none"> <li>SLBM</li> </ul>	<b>Air:</b> <ul style="list-style-type: none"> <li><b>Aircraft</b></li> <li><b>Balloon</b></li> <li><b>Dirigible</b></li> <li><b>Drones</b></li> <li><b>Airborne mines</b></li> <li><b>5G</b></li> </ul>	<b>Land:</b> <ul style="list-style-type: none"> <li><b>Mobile</b></li> <li><b>Rail</b></li> <li><b>Human</b></li> <li><b>5G</b></li> </ul>	<b>Sea:</b> <ul style="list-style-type: none"> <li><b>Drones</b></li> <li><b>Ship</b></li> <li><b>Small-craft</b></li> <li><b>Nuclear-torpedo</b></li> <li><b>Submersibles</b></li> </ul>	<b>Space:</b> <ul style="list-style-type: none"> <li><b>Lunar-weapons</b></li> <li><b>Satellites</b></li> <li><b>5G</b></li> </ul>	<b>Cyberspace:</b> <ul style="list-style-type: none"> <li>Includes denial, hacking, disruption, &amp; destruction of systems, etc.</li> <li><b>5G</b></li> </ul>
<b>Quantum entangled technologies</b>							

†**Not covered by treaty** \*Limited anti-satellite capabilities have existed since the 1960s. The Star Fish Prime Nuclear Tests resulted in both HEMP and disruption of LEO satellites. Militaries have also historically demonstrated limited capabilities of downing LEO satellites with air-to-air missiles.



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

## What we tend to understand:

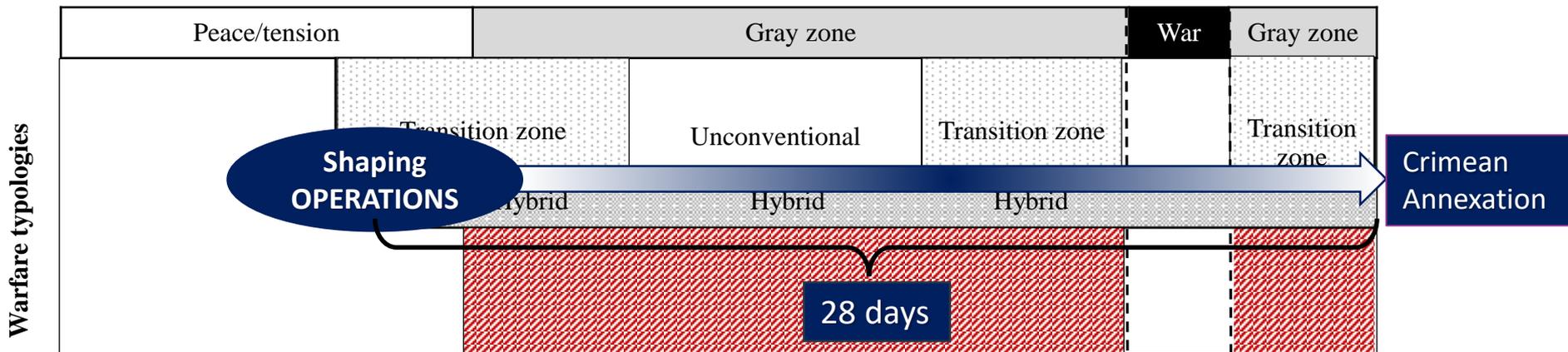




# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

What we increasingly encounter:

## Stuckenberg Model



- - - Trigger/threshold for War

 Un-addressed by strategic deterrence

 Hybrid warfare

Level of violence

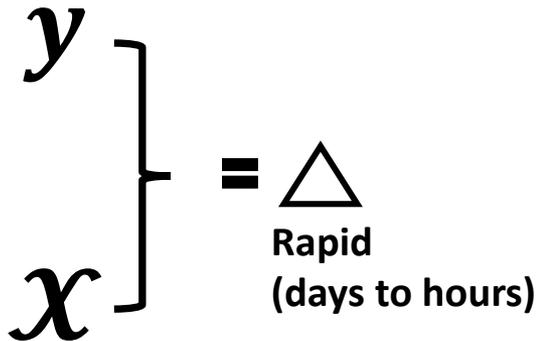




# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

Current US/NATO Operations Picture:

$$= \Delta \infty$$



- Cold War**
- Politics
  - Policies
  - Technologies
  - Strategies

- $x$  } =  $\Delta \infty$
- Today?**
- Politics
  - Policies
  - Technologies
  - Strategies

$x$   
 $\Delta$   
 $y$

Adversary Action(s)  
 Time Delta (Time to make decision)  
 Alliance Response to X



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

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How can you convert potential adversary action(s) into inaction?

*x*

*x* Adversary Action(s)



# SCOPE OF MILITARY STRUGGLE TO INNOVATE AND ADAPT

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- ***Dissuasion*** is the ONLY WAY to remove an adversary's will to act in today's reward rich environment
  - A close cousin of deterrence, *dissuasion* focuses on influencing an adversary or potential adversary not to take certain action(s) based not upon what harm will come to the aggressor (i.e. MAD), but on an actual or perceived inability to achieve the desired ends.
  - Removes all enticements to act
    - *"The supreme art of war is to subdue the enemy without fighting" – Sun Tzu*
  - Dissuasion may be accomplished through the simultaneous application to Military Information Support Operations (MISO) and phased physical upgrades

"If you can't explain it simply, you don't understand it . . ."

- Albert Einstein





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

- “Most immediate and extreme danger” is nuclear terrorism (2010 Nuclear Posture Review)
  - States, their proxies, or terrorists will, at some point, permit or gain access a WMD/WME by whatever means
  - The transformative climate has not been met with adaptive defense strategy to addresses the most critical scenario:

## OPTIMIZATION OF WMD/WME TO ACHIEVE STRATEGIC EFFECTS

Recognize that indications and warnings of enemy use of surface and airburst nuclear weapons may not be present for HEMP threats. [ ] . . . [I]ndicators, however, are unlikely to provide warning of a high altitude EMP threat.

- US Army FC-50-16 (1984)



# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

- Present US/NATO defenses fail to holistically meet the transformative demands of expansive strategic threat climate
  - China, Iran, North Korea, Russia, AQ, ISIS, and others comprehend:

“It’s a mismatch unique in history . . . For the first time, blackout war [EMP attack] enables the least successful society on Earth, like a North Korea that cannot even feed its own people, or even atavistic non-state actors like ISIS or Al Qaeda, to destroy the most powerful societies, including the United States . . . ”

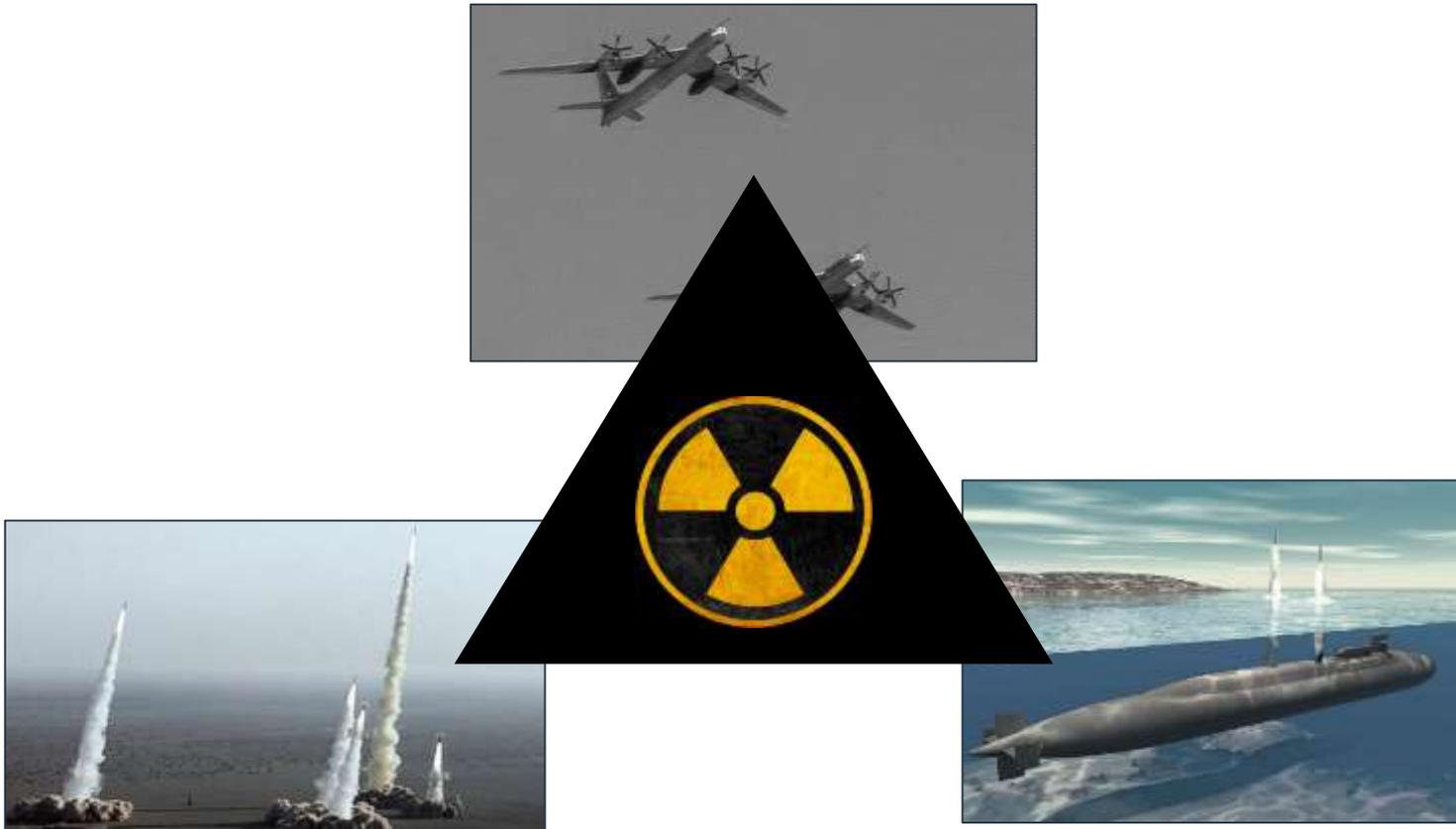
- Dr. Peter Pry, Former Executive Director, Congressional Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack

**BOTTOM LINE: U.S. must implement strategy to close strategic gaps or these gaps will invite strategic exploitation**



# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

- Thinking of WMD/WME delivery we understand conventional





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

- Now must consider novel delivery + conventional + combinations





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

- Russian 3M54 (“Klub K”) or NATO SS-N-27 (“Sizzler”)

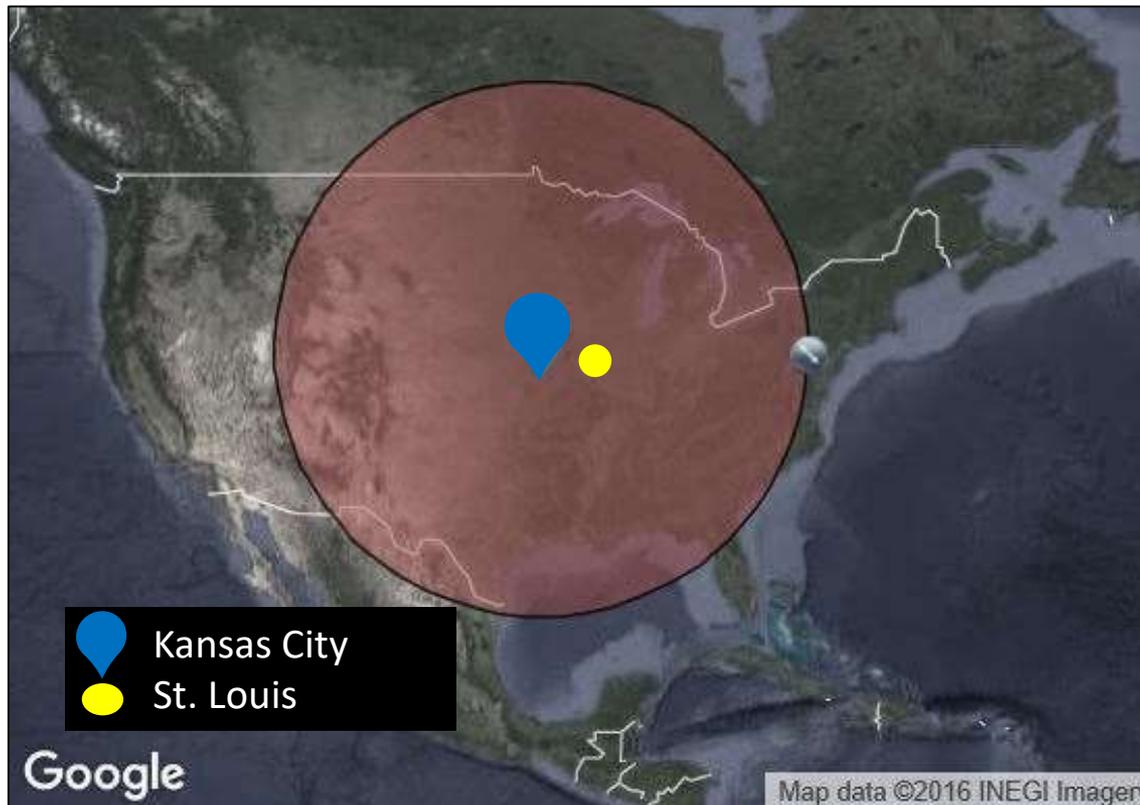




# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

- **Russian 3M54 (“Klub”) NATO SS-N-27 (“Sizzler”)**

- Range 1,550 Mi.





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

## NK: Chong Chon Cang





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

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- Balloons may be resourced and built nearly without notice
- May loft nuclear or EMP device



# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

“The area disrupted by Hurricane Katrina is comparable to what can be expected from a small EMP attack.”

- EMP Commission (130)





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

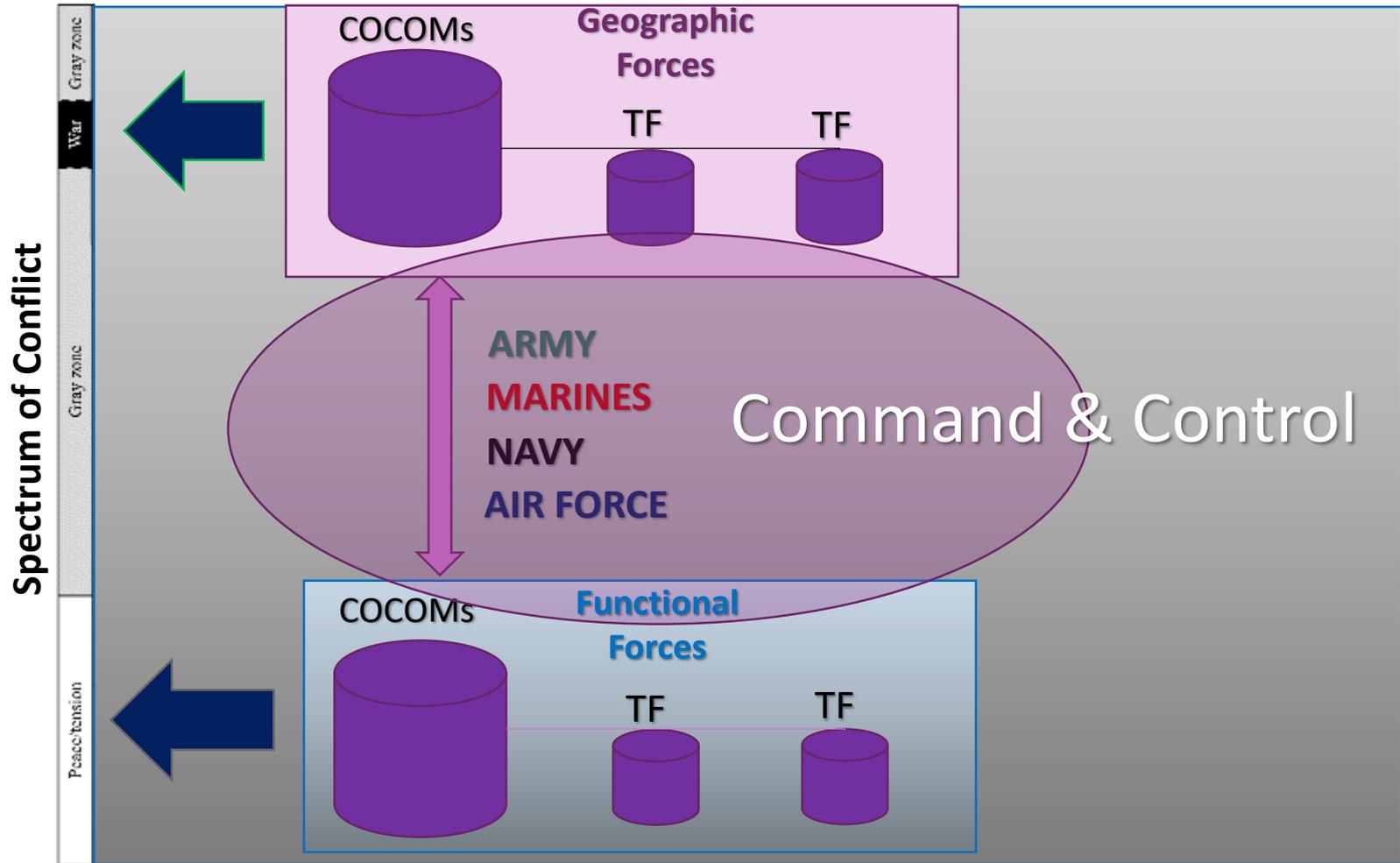
“The more you sweat in peace, the less you bleed in war.” - Sun Tzu

- Institutional knowledge has been lost
- Cannot fathom an attack on US Homeland: “Too big to fail”
- All defense predicated on function of early warning and C2





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE





# IMPLICATIONS OF STRATEGIC “GRAY ZONE” WARFARE

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- GREATEST CHALLENGES FOR WEST (US/NATO):
  1. Breaking the Illusion of invulnerability
  2. Creating survivable multi-national military C2
  3. Educating the force to achieve COP – Gray Zone
  4. Developing defense strategy for the gray zone
  5. Defending against strategic cascades
  6. Technologically primed for total defeat (due to stripping of resilience)
  7. Not ready for changes in warfare (i.e. France before WWII - “Maginot Moment”)
  8. Continued technological fusions that enable recipients of diffused power to convert potential energy into kinetic energy (at all levels of conflict)



# CONNECTING DOTS: MULTI-DOMAIN THREATS

## ELECTROMAGNETIC SPECTRUM:

- Electromagnetic Defense Task Force
  - Quantum
  - DE/HPEM
  - Electromagnetic Spectrum Management
  - EMP/HEMP/GMD
  - 5G





# AVOIDING DEFEAT: A WAY AHEAD

- STRATEGIES:

- **Close the deterrence gap with *dissuasion* campaign**
  - Better protect nuclear power facilities (critical infrastructure)
  - Move spent fuel to dry casks (reduce risk to US by 75 percent)
  - Implement 5G while hardening
- **Create US gray zone strategy**
  - Commander's Intent
  - Educate NATO – restore institutional knowledge
  - Create retaliation policy
- **New top-to-bottom EMS construct?**
  - Re-orient all electromagnetic activities



EDTF



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