21st Century Deterrence in the Space Warfighting Domain: Not Your Father's Century, Deterrence or Domain

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Summary

- Deterrence in space for the 21st Century can't be:
 - Nuclear deterrence that keeps superpowers from engaging each other, nor
 - Ad-hoc conventional deterrence that fails to keep perhaps thousands of smaller conflicts from erupting across the globe (even among nuclear countries)
- Deterrence in space for the 21st Century must be:
 - National/multi-national, multi-discipline/multi-domain
 - Diplomacy, information, military, economic (DIME)



Introduction: New Century; New Deterrence; New Domain

- The century isn't exactly new, but it is very young
- Post-Cold War deterrence isn't really new either, but it too is very young
- But a warfighting space domain is brand new and requires a new look at deterrence



Part 1: New Century

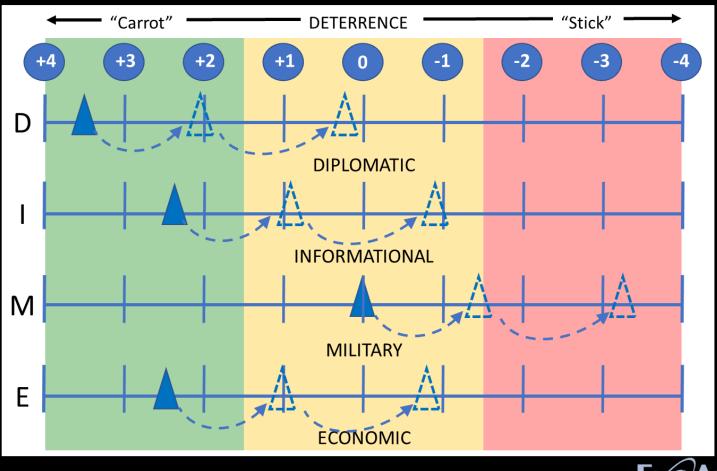


21st Century flips Clausewitz's statement that "war is politics by other means" to "war prevention is deterrence by all means"



New Century: Power = DIME

• "Carrots and sticks" deterrence across DIME





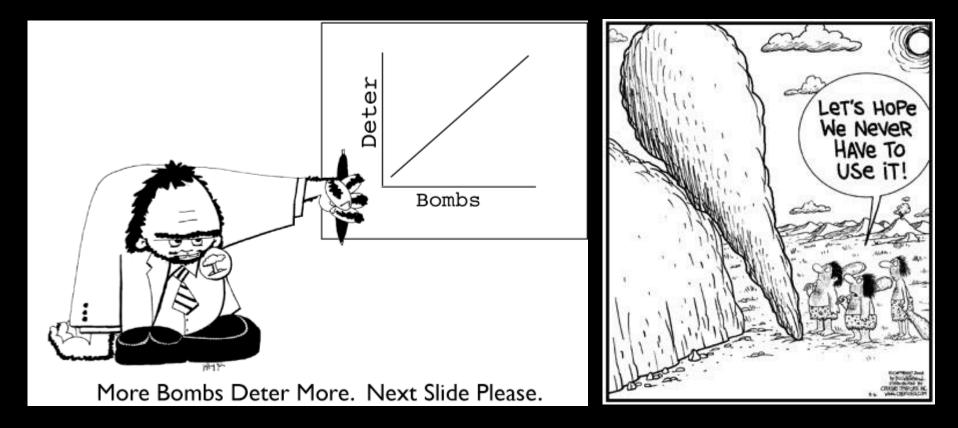
New Century: Not the Cold War

- "Three Cs" for deterrence across DIME
 - <u>Capable</u>
 - <u>Communicated</u>
 - <u>Credible</u>
- A fourth "C" for effective deterrence in the space warfighting domain
 - <u>Conditioned</u>

20th Century Power = Nuclear stockpile 21st Century Power = DIME instruments of national power



Part 2: New Deterrence



Multidomain Flexible Deterrence — focused flexible deterrent options (FDOs) and flexible response options (FROs)



New Deterrence: Multi-...

- Multi-national, multi-discipline, and multi-domain
- Operational environments "encompass the physical areas of the air, land, maritime, and space domains; the information environment (including cyberspace); the electromagnetic spectrum; and other factors"



New Deterrence: Flexible

 A range of flexible deterrent options (FDOs) and flexible response options (FROs) that are coordinated with a total multi-national response

Diplomatic

Show international resolve Publicize some diplomacy Reduce diplomatic ties Reaffirm coalition/allies

Informational

Sanctions on dual-use tech Mission assurance/resiliency Commercial augmentation Heightened public awareness

Flexible Deterrent Options (FDOs) Small Discriminate Response Options

Increased surveillance Exercises/wargames Force movements Force augmentations

Military

Trade sanctions Reduced resource availability Discontinued assistance Frozen assets or property

Economic



New Deterrence: Assured Space

Capabilities

- SATCOM
- Launch
- SSA
- ISR
- RFI
- PNT
- 00S

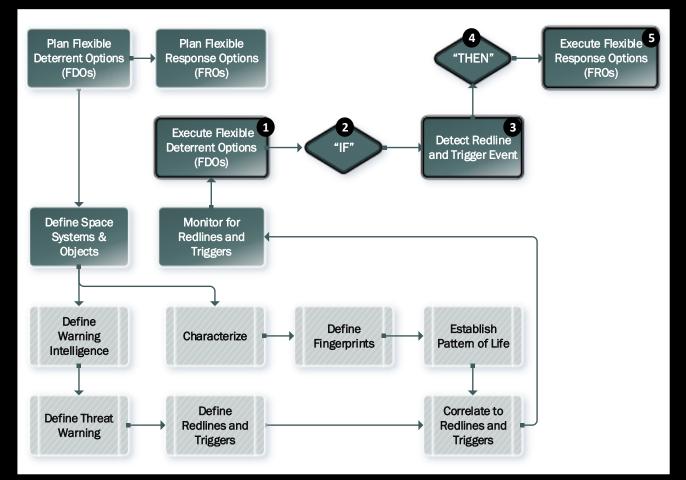
Mission Assurance

- Defense
- Reconstitution
- Resilience
 - Disaggregation Deception
 - Distribution ISR
 - Diversification RFI
 - Protection PNT
 - Proliferation OOS



New Deterrence: FDOs \rightarrow FROs

• Planning FDOs \rightarrow FROs for the space domain





New Domain: Space Warfighting

- "Three Cs" for the space domain
 - <u>Congested</u>
 - <u>Contested</u>
 - <u>Competitive</u>
- A fourth "C" when deterrence fails for space-faring nations in a terrestrial conflict
 - <u>Combative</u>



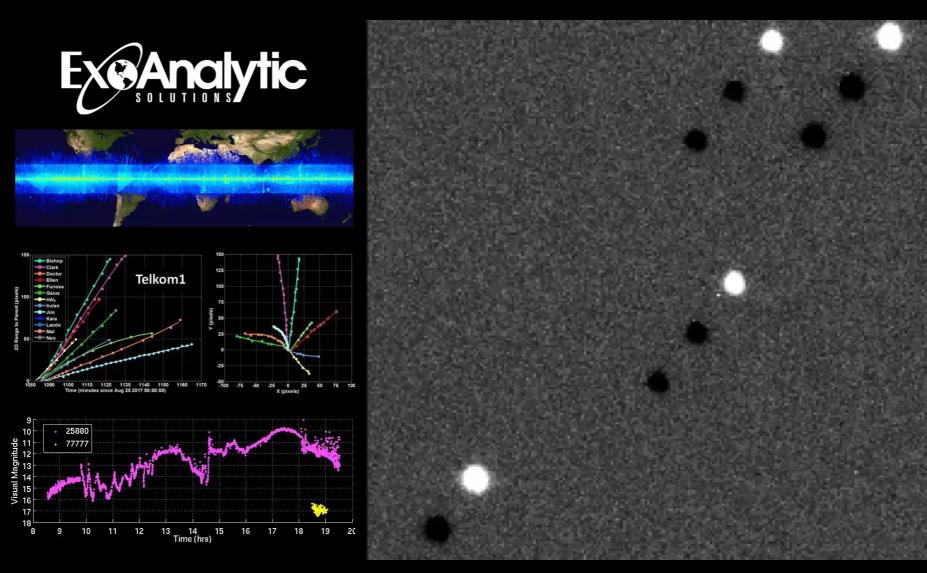
New Domain: Four Challenges

- 1) Develop and publish appropriate space deterrence and warfighting policy and strategy
- 2) Define and codify space deterrence and warfighting requirements
- 3) Develop, acquire and deliver space deterrence and warfighting systems
- Execute (by conditioned leaders) deterrence to dissuade conflict in space with communicated (known) and credible space warfighting capabilities

Recall the classic quote from Dr. Strangelove, "The whole point of a Doomsday Machine is lost, if you keep it a secret!"



Application and Discussion





ExoAnalytic Solutions Proprietary

Conclusion: Road Ahead

- 1) Develop comprehensive multi-national, multi-discipline and multi-domain DIME deterrence
- Exercise and wargame deterrence across all levels of DIME to identify deterrence capability, communication and credibility gaps
- 3) Propose and develop near-, mid-, and long-term solutions for deterrence gaps (across #1)
- 4) Rinse and Repeat!

Deterrence is multi-national/multi-domain DIME FDOs → FROs in the space warfighting domain



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BACKUP



Space Deterrence: Start to Finish

