

# Contemporary Deterrence Challenges

-- Some Thoughts for Leaders and Practitioners --

**Center for the Study of  
Weapons of Mass Destruction**

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# Central Idea

- Deterrence operates in the *cognitive domain* and is essentially an *influence operation* directed at an adversary's decision making
- Adversary decision calculus focuses on the perception of three key factors
  - The benefits of a COA
  - The costs of a COA
  - The consequences of restraint
- Deterrence operations seek to shape these perceptions by demonstrating resolve and capability through words and actions

# Adversary Risk Assessment

Costs of Action	Benefits of Action
Benefits of Restraint	Costs of Restraint

*Blue seeks to increase*

*Blue seeks to reduce*

**Capabilities -- Credibility -- Communication**

# Adversary Risk Assessment

*deterrence by punishment*

*deterrence by denial*

Costs of Action	Benefits of Action
Benefits of Restraint	Costs of Restraint

*“inducements”*

*Blue seeks to increase*

*Blue seeks to reduce*

**Capabilities -- Credibility -- Communication**

# What's Hard About This Today?

- Multiple adversaries – *tailored strategies required*
- Incomplete knowledge – *intel challenge and unavoidable uncertainties*
- Asymmetry of stakes – *can challenge credibility*
- More complex operating environment – *driven by competitors' investments*
- Deterrence messaging – *in today's infosphere?*



# 2017 National Security Strategy



“....Deterrence today is significantly more complex to achieve than during the Cold War. Adversaries studied the American way of war and began investing in capabilities that targeted our strengths and sought to exploit perceived weaknesses. The spread of accurate and inexpensive weapons and the use of cyber tools have allowed state and non-state competitors to harm the United States across various domains. Such capabilities contest what was recently U.S. dominance across the land, air, maritime, space, and cyberspace domains. They also enable adversaries to attempt strategic attacks against the United States – without resorting to nuclear weapons – in ways that could cripple our economy and our ability to deploy military forces. Deterrence must be extended across all these domains and must address all possible strategic attacks.”





# Key Deterrence Challenges

Deter in cyber and space domains

Deter local aggression and subsequent escalation

Deter political warfare

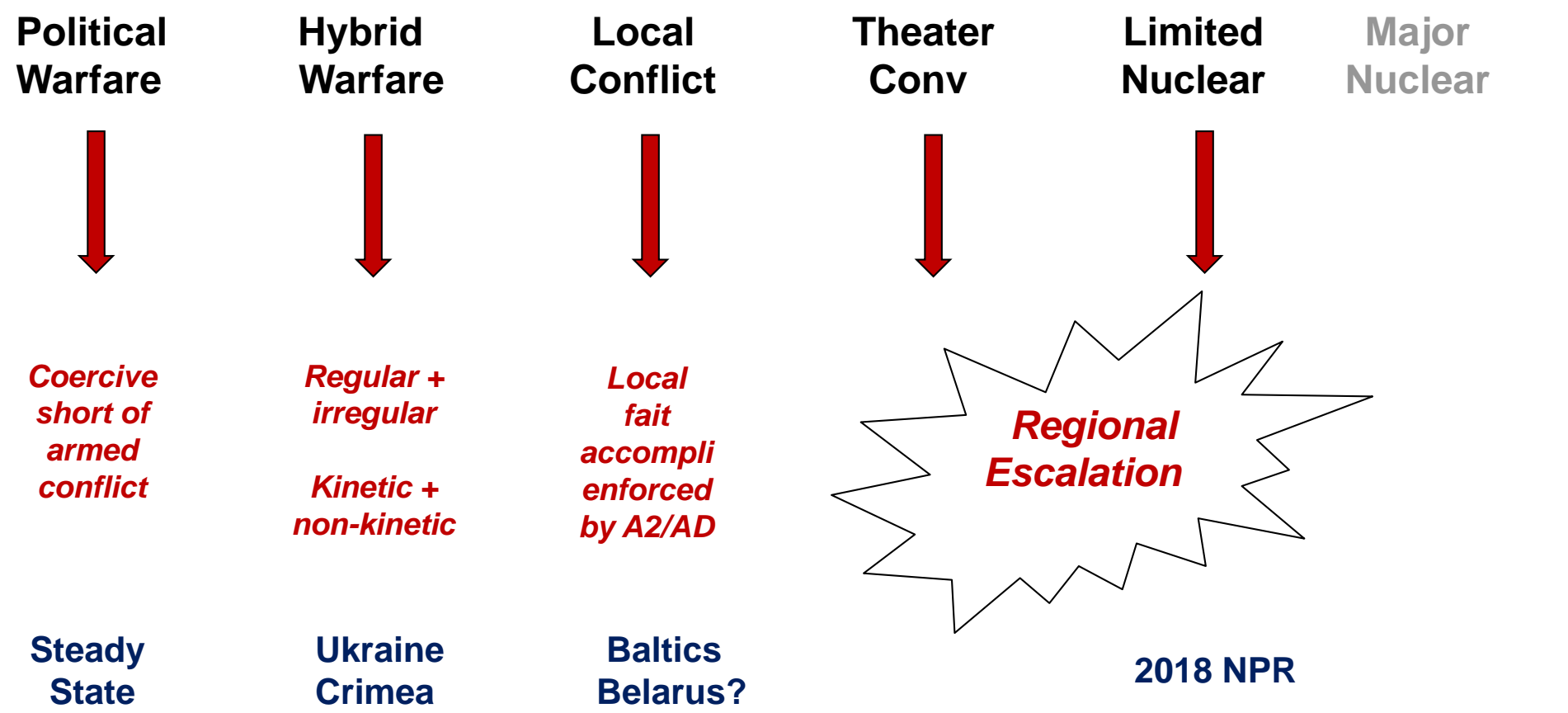
Deter CB use  
- state & VEO

Deter a small  
nuclear power

Manage deterrence &  
escalation with an  
advanced adversary

Reassure allies through Extended Deterrence

# Russia – Deterrence Challenges





# Toolkit for Countering Political Warfare

- Mitigate conditions that create vulnerability
- Shape narratives
- Aggressively counter disinformation and expose adversary activities
- Strengthen rule of law and good governance
- Reduce ethnic tension
- Harden against cyber and economic attacks
- Protect economic sovereignty
- Establish some red lines – e.g., electoral interference

***Denial...Resistance ...Resilience...Competition...Deterrence?***

# Detering the Local *Fait Accompli*

- Expanded NATO Response Force
- Expanded Baltic Air Policing
- New Very High Readiness Joint Task Force
- NATO Readiness Initiative
- Enhanced Forward Presence in the East and the Black Sea region ↓
- US armored brigade to PO
- Multinational land brigade in RO
- Adapted Command Structure
- Rapid Air Mobility initiative
- Joint Air Power Strategy
- NATO Space Policy (future)

## 4 Multinational Battlegroups

### ESTONIA:

United Kingdom  
France

### LITHUANIA:

Germany  
Belgium  
Luxembourg  
The Netherlands  
Norway

### LATVIA:

Canada  
Albania  
Italy  
Poland  
Slovenia  
Spain

### POLAND:

United States  
Romania  
United Kingdom

Legend:  
■ Framework Nation  
■ Contributing Nation  
Valid as of 28 June 2017



# NATO Enhanced Forward Presence

# Intra-War Deterrence to Manage an Escalating Conflict

How would Russia use credible threats to escalate a conflict to hold its advantage and deter a NATO effort to mobilize and counter-attack?

## *Escalation at the “pre-nuclear” level*

- *Conventional precision strike, cyber, counter-space, counter-C4ISR.... plus nuclear threats*

## *Subsequent escalation, if necessary, to limited nuclear use*

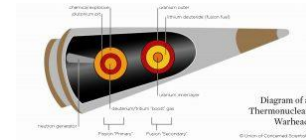
- *Could take many forms, but fundamental goal is political – to alter dynamics of conflict by conveying risk of catastrophic outcome*

*Is there a deterrence gap at the theater nuclear level?*

# 2018 Nuclear Posture Review



- Mismatch in US-RF nonstrategic nuclear capabilities and doctrine encourages coercive strategy and could lead to deterrence instability
  - “exploitable advantage”
- Need to enhance deterrence with additional nonstrategic nuclear capabilities
  - Modify a small number of SLBM warheads to provide a low yield SLBM option
  - Longer-term: develop a new nuclear-armed sea-launched cruise missile



# Can Nukes Deter Cyber? Should They?



*“The U.S. would only consider the employment of nuclear weapons in extreme circumstances to defend the vital interests of the US, its allies, and partners. Extreme circumstances could include significant non-nuclear strategic attacks. Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allies or partner population or infrastructure, and attacks U.S. or allied nuclear forces, their C2, or warning and attack assessment capabilities.”*



# The Great Cyber-Deterrence Debate

- ***Deterrence remains relevant, but is not a panacea***

- Nuclear experience can be adapted, but total prevention of cyberwar is not possible
- Requires improved attribution and greater emphasis on norm-building

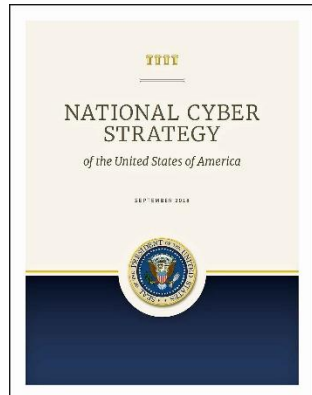
***Deterrence Adaptors***

- ***Deterrence is not a useful construct***

- The hypercompetitive nature of cyberspace – “persistent offense” – is not compatible with traditional deterrence concepts
- Rather, we need to reduce operating constraints to better engage adversaries earlier and with the goal of establishing dominance

***Paradigm Smashers***

# What are we saying and doing?



- In practice, we are synthesizing the two perspectives
  - Going on the offensive and more risk-acceptant
  - But also looking to change adversary risk calculus and behavior through fear of high costs....and mindful of escalation risks

**CYBER-SYNTHESIZERS**



# Deterrence and Escalation in a “Cross-Domain” Environment



*“China has a broad concept of strategic deterrence, one in which a multidimensional set of military and non-military capabilities combine to constitute the “integrated strategic deterrence” posture required to protect Chinese interests....Powerful military capabilities of several types – nuclear, conventional, space and cyber – are all essential components....non-military aspects of national power also contribute...”*

RAND study (2016)

- *Challenge:* The context for a future US- China conflict may be “limited objectives” – but capabilities, doctrine, and underlying political stakes carry significant escalation potential. “Multidimensional capabilities” on both sides create uncertainties with respect to understanding redlines, thresholds, and managing escalation risks.
  - *How well do we understand these dynamics?*
  - *Do we have a comparable concept for integrated strategic deterrence?*

# Deterrence Challenges -- China

- “Win without fighting” – can US deter Chinese coercive strategies to impose new territorial and political arrangements?
- Will China be able to deter a US response to aggression through its conventional force build-up?
- Will China seek to move beyond “secure second strike” to acquire capabilities for more limited nuclear options to reinforce regional deterrence of US?

# Detering North Korea

*How is deterrence affected if nK possesses the means to credibly hold the US homeland at risk?*

- Their way to deter us

*How do we wage a decisive conventional campaign that does not trigger DPRK nuclear use?*

- Their incentives could be high

*How do we respond to NK limited nuclear use?*

- Many factors will shape this



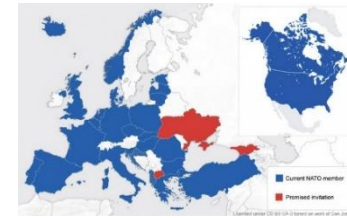
***And above all, while defending our own vital interests, nuclear powers must avert those confrontations which bring an adversary to a choice of either a humiliating retreat or a nuclear war. To adopt that kind of course in the nuclear age would be evidence only of the bankruptcy of our policy – or of a collective death-wish for the world.***

**John. F. Kennedy**



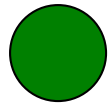
# Extended Deterrence

- Strengthen regional security, support nonproliferation
- But no single model
  - NATO: deep institutional structure, and forward-based nuclear weapons
    - How well-suited to new challenges, extended period of tension?
  - East Asia: bilateral treaties, simpler consultation, OTH nuclear capabilities
    - How strong – or fragile – are these relationships?
  - Middle East: mature security relationships, but looser guarantees
    - What might END look like – if it were feasible?

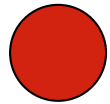


***Should the U.S. run these risks and bear these costs?***

# Can Terrorists or VEOs Be Deterred from Using WMD?



**Sure – every actor weighs costs, risks and benefits, and these can be influenced**



**No way – our VEO adversaries are undeterrable, so “possession = use”**



**Maybe – it depends on the circumstances**

# Last thought....



**Deterrence itself is not a preeminent value;  
the primary values are safety and morality.**

**- Herman Kahn -**

quoteparrot.com



# A Resource for You



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# BACKUPS

# “Integrated Strategic Deterrence”

- *Widespread assumption:* military capabilities can be better integrated for enhanced deterrence, escalation risk management, and Presidential decision space



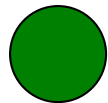
- *Increasingly apparent reality:* We don't yet know how to buy better deterrence or risk management this way
- *How important is this?*

# And...

***“U.S. forces will ensure their ability to integrate nuclear and non-nuclear military planning and operations. Combatant Commands and Service components will be organized and resourced for this mission, and will plan, train, and exercise to integrate U.S. nuclear and non-nuclear forces and operate in the face of adversary nuclear threats and attacks.”***



# Can Terrorists or VEOs Be Deterred from Using WMD?



**Sure – every actor weighs costs, risks and benefits, and these can be influenced**

*Can / should we deter Iran from transferring WMD to proxy forces?*



**Maybe – it depends on the circumstances**

# If Deterrence is an Influence Operation....

....How can we get better at “strategic messaging?”

- Shape adversary perceptions to reduce confidence, induce restraint
- Reassure allies/onlookers
- Reinforce legitimacy
- Look for resolution

- **Strategic intent** – policies, objectives, resolve, redlines....
- **Unity of effort** – national, alliances, coalitions, international....
- **Adversary vulnerabilities** – we understand and can exploit
- **Adaptability and resilience** – our vulnerabilities are manageable
- **Capabilities** – via testing, demonstrations, evaluations, adaptations....
- **Exercises** – big, small, integrated, multinational....
- **“Off ramps”** – to leave the adversary something to lose

## A couple of worries

- Too much noise
- An “information-denied” operational environment
- Is IC postured to support?

# JPME Special Area of Emphasis

## Strategic Deterrence in the 21<sup>st</sup> Century

*Deterrence today is more complex and in some ways more difficult than during the Cold War. We now must deter multiple nuclear armed-states simultaneously through multiple domains, across regions, and with multiple methods, including forward presence and the use of conventional forces. The risk that a regional adversary will try to escalate its way out of a conventional conflict is growing.... Yet JPME generally treats nuclear deterrence as a Cold War relic and cross-domain deterrence as an interesting experiment; **there is a critical need to raise the bar both in content and in levels of learning across the Joint Force.***



# Key NATO Actions Since 2014

- Expanded NATO Response Force
- Expanded Baltic Air Policing
- New Very High Readiness Joint Task Force
- NATO Readiness Initiative
- Enhanced Forward Presence in the East and the Black Sea region
- US armored brigade to PO
- Multinational land brigade in RO
- Adapted Command Structure
- Rapid Air Mobility initiative
- Joint Air Power Strategy
- NATO Space Policy (forthcoming)

# Today's Topics

- North Korea
- Cyber (and Space)
- China
- Russia
- Nuclear Weapons
- VEOs

# What's different from the Cold War era?

- Regional challengers / rogue states
- Regional conflict with “near-peer” challengers
- Limited war / Asymmetric conflict
- New capabilities/domains (cyber, space, BMD)
- VEOs with potential access to WMD

# Deterrence and the 4 +1 Challenges

*Key to our approach is being able to deter the most advanced adversaries while continuing to fight terrorist groups. The means we must have – and be seen to have -- the ability to **impose unacceptable costs on an advanced aggressor** that will either dissuade them from taking provocative action, or make them deeply regret it if they do...We will be prepared for a **high-end enemy** – what we call **full spectrum**. In our budget, our plans, our capabilities, and our actions, we must demonstrate to potential foes that if they start a war, we are able to win, on our terms. **Because a force meant to deter conflict can only succeed if it can show that it will dominate a conflict.***

*We have this ability with respect to **North Korean** and **Iranian** military forces, as well as in executing the military aspects of countering terrorists... **Russia** and **China** are our most stressing competitors...DoD has elevated their importance in our defense planning and budgeting to ensure we maintain our advantages in the future.*

**FY17 Defense Posture Statement, SecDef Ash Carter**

# “Full Spectrum Deterrence” – Three Lenses

## ***Across the spectrum of conflict***

*Peace – Gray Zone – Crisis – Limited conv – Major conv – WMD – Limited nuc – Major nuc*

## ***Across the DoD toolkit***

*Forward presence – TSC/BPC – Power Projection – Unconventional – Conventional – Cyber – Nuclear*

## ***Across all elements of national power***

*Diplomatic/Political – Informational – Military – Economic*

**Not linear** – traditional escalation ladders may be much more dynamic

**Gray Zone** – is deterrence relevant?

**DIME** – how are we doing?

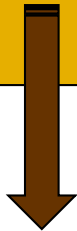
# 2018 U.S. Nuclear Posture Review



- Renewed great power competition
- More dangerous nuclear threat environment – coercive strategies
- Imbalances in US-RF capabilities and doctrine at the nonstrategic nuclear level (“deterrence gap”)
- Growing set of non-nuclear threats with potential to inflict extreme damage



**More/better  
low yield  
nuclear options**



**Potential for nuclear response to  
major non-nuclear strategic attacks**



# BURNING QUESTIONS



- *Does it have Russian doctrine right?*
- *If so, does it have the solution right?*
- *Does it create risks of “lowering the nuclear threshold?”*
  - *New capabilities*
  - *Declaratory policy*
- *Does it say the right things about arms control and disarmament?*



# Deterrence and the 4 +1 Challenges

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## Challenge 2: Deterrence in Cyber and Space

*“The DOD must be able to declare or display **effective response capabilities** to deter an adversary from initiating an attack; develop **effective defensive capabilities** to deny a potential attack from succeeding, and **strengthen the overall resilience of US systems** to withstand a potential attack if it penetrates the United States’ defenses. In addition, the US requires **strong intelligence, forensics, and indications and warning capabilities** to reduce anonymity in cyberspace and increase confidence in **attribution.**”*

**The DoD Cyber Strategy (April 2015)**

*“We will: support diplomatic efforts to **promote norms** of responsible behavior in space; pursue international partnerships that **encourage potential adversary restraint**; improve our ability to **attribute attacks**; strengthen the **resilience** of our architectures to deny the benefits of an attack; and **retain the right to respond**, should deterrence fail.”*

**National Security Space Strategy (January 2011)**

# Detering WMD Use – The Syria CW Case

“We have been very clear with the Assad regime, but also to other players on the ground, that a red line for us is we start seeing a whole bunch of chemical weapons moving around or being utilized. That would change my calculus. That would change my equation...We’re monitoring that situation very carefully. We have put together a range of contingency plans.”

**POTUS 8/12/12**

“Once the commander in chief draws that red line, then I think the credibility of the commander in chief and this nation is at stake if he doesn’t enforce it.” **Former SecDef Leon Panetta**

“Assad is effectively being rewarded for the use of chemical weapons, rather than punished, as originally planned.” **Brookings scholar**

“The threat of force was credible enough for them to give up their chemical weapons. We threatened military action and they responded. That’s deterrent credibility.”

**US Senator Tim Kaine**

“No one sees Obama as a weak president, and no one saw that moment as a moment of weakness...Risking war with a nuclear power over Ukraine was just not going to happen. It would have been clear even if Obama had hit Syria. It wouldn’t have changed anything...these things are not connected to each other in any way.”

**Russian commentators close to the Kremlin**

# “We need high-velocity learners...”

*“deterrence isn’t easy...we need high-velocity learners who are willing to develop and stretch their intellect well beyond one-dimensional problem solving as we work on these things...We need leaders who do not become static, and who search for and recognize signals of change – and then find connections and solutions that are seemingly impossible. We need “chess players” who can operate in a multi-dimensional environment, with multiple activities taking place simultaneously, on a board where they may not fully understand the rules by which multiple adversaries are playing. We need to inspire and develop the next Tom Schelling or Henry Kissinger to address 21st century deterrence, assurance and escalation control issues.”*

former Commander, STRATCOM

# Deterrence Operations Joint Operating Concept (2006)

- Provide a conceptual foundation and a working model: How do we wage deterrence against adversaries, and how do we deliberately plan for such campaigns?

*Deterrence operations convince adversaries not to take actions that threaten vital US interests by means of **decisive influence** over their decision making.*

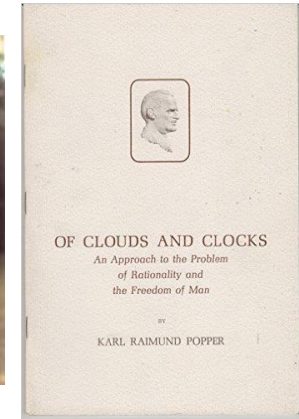
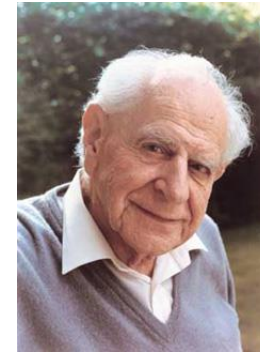
*Decisive influence is achieved by credibly threatening to **deny benefits** or **impose costs**, **while encouraging restraint** by convincing the actor that restraint will result in an acceptable outcome*

- Key challenges
  - Multiple adversaries – tailored strategies required
  - Incomplete knowledge – intel challenge and unavoidable uncertainties
  - Asymmetry of stakes – can weaken credibility
  - New domains of warfare – can complicate the management of escalation risks
- Operationalize through an analytic process that feeds adversary-specific plans

[www.dtic.mil/futurejointwarfare/concepts/do\\_joc\\_v20.doc](http://www.dtic.mil/futurejointwarfare/concepts/do_joc_v20.doc)

# Is Deterrence....

## A Clock?

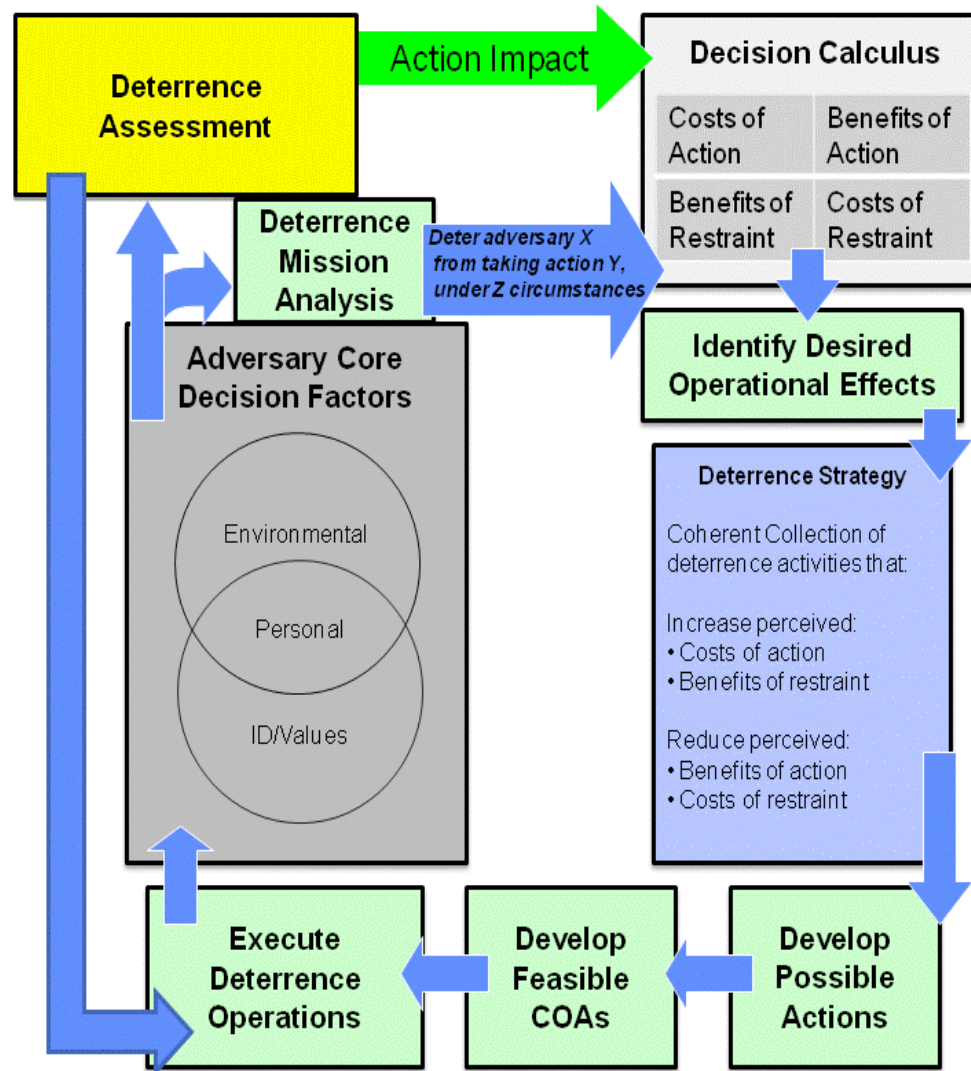


## Or a Cloud?





# Deterrence Analysis, Planning, & Operational Flow



# One Quick History Lesson



## *Did deterrence work in the first Gulf War?*

- **To deter Iraq's invasion of Kuwait?**
- **To deter Iraq's use of chemical or biological weapons?**

***What's the lesson?***



***"...purposefully left the impression" that CB use would invite "tactical nuclear retaliation."***

