



**INSS Extended Deterrence Workshop Series**  
***Implications for the United States Air Force***

Workshops hosted by  
Air Force Institute for National Security Studies (INSS)  
and  
USAF Strategic Plans and Policies Division (A5XP)

Extended Deterrence and NATO/Europe Workshop  
*22-23 June 2011*

Extended Deterrence and Northeast Asia Workshop  
*21-22 September 2011*

Extended Deterrence and the Middle East Workshop  
*18-19 April 2012*

Extended Deterrence and Arms Control Workshop  
*20 September 2012*

Summary Report Compiled by

Dr. James M. Smith, USAF Institute for National Security Studies  
Dr. Jeffrey Larsen, Science Applications International Corporation  
Ms. Polly Holdorf, Toeroek Associates, Inc.  
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## ISSUES AND QUESTIONS FOR THE UNITED STATES AIR FORCE

### EXECUTIVE SUMMARY

#### **NATO/Europe**

What is the likely impact on the Air Force if NATO asks the United States to end its forward deployed nuclear mission? Would that impact be positive or negative? What are the options and impacts?

How can the USAF maintain motivation and mission competence when NATO allies, including the governments of some of the states where our personnel are stationed, advocate an end to the DCA mission?

Could (or should) the Air Force advocate alternatives to the current extended deterrence posture in Europe? Are there other ways the Air Force can assure our allies of a credible deterrent guarantee?

#### **Northeast Asia**

In what way might the Air Force seek improved relations with the Chinese military? For example, lowering regional tensions and wariness of Chinese military modernization might contribute to a lessening of tensions in the region and contribute to overall assurance of our allies. What roles could (should) the USAF play in engagement with the PLAAF/Second Artillery?

Is there a role for the DCA F-35 in providing extended deterrence guarantees to US allies in Northeast Asia? Planning for regional DCA deployment, particularly combined planning with our regional allies, would have significant operational benefits in addition to strong assurance outcomes. In a time of crisis, consideration might also be given to actual deployment of USAF DCA airframes to the region. Should the USAF lean forward in these areas?

Does the Air Force require additional bases and/or nuclear deployment support infrastructure in the Pacific region for extended deterrence and assurance? How does this mesh with the Air-Sea Battle concept airpower requirements? Does the USAF need a regional basing and infrastructure strategy/plan for Northeast Asia support?

Has the Air Force studied how it might best conduct a nuclear strike in the Pacific region were its systems/personnel called upon to do so? Should the USAF advocate for specific training, including exercising limited nuclear warfighting scenarios in the Northeast Asia region?

#### **Middle East**

What roles can airpower play in prevention, extended deterrence, defense, and assurance in the Middle East? How can airpower enhance or substitute for other US forces? What air forces/presence might be required as US forces draw down in the region? What roles can remotely piloted vehicles play in this region?

What basing requirements are generated by these various mission sets? Does the USAF need a basing strategy to ensure effective application of airpower? What is required for credibility from airpower in this region: forward, visible presence; over-the-horizon assets; or a mix of both? What role might a “continuous presence” model like used in Northeast Asia, or a deployable DCA F-35 play in meeting regional requirements for extended deterrence and assurance?

### **Implications for Arms Control**

As the United States further reduces its nuclear forces, how can the USAF contribute to maintaining the credibility of the deterrence/extended deterrence posture presented by its remaining systems in the eyes of potential nuclear adversaries? How can the USAF maximize its contributions to assurance to U.S. allies and friends?

What does it mean to provide extended deterrence and assurance to three regions simultaneously while also providing central deterrence? What capabilities and attributes are necessary to accomplish all of these missions? How do you convey the messages of credible deterrence and assurance to all of those various targets and partners? The USAF must be particularly sensitive to preserving those system attributes required for both central and extended deterrence at low numbers of nuclear weapons. The United States must be careful not to negotiate away current systems with attributes that may become essential at lower numbers tomorrow.

## **THE INSS EXTENDED DETERRENCE WORKSHOP SERIES**

The USAF Institute for National Security Studies (INSS), located within the faculty at the Air Force Academy, provides a focal point for Air Force national security policy research, discourse, outreach, and education. The primary INSS sponsor is AF/A5XP.

In 2011 INSS planned a one-year study focused on issues of extended deterrence. As a result of decisions taken in the 2010 Nuclear Posture Review USAF personnel and systems were assuming a more central role in implementation of COCOM extended deterrence postures. With support from AF/A5XP, this study focused on defining USAF extended deterrence equities for ongoing and future arms control. A5XP then teamed with AF/A10 and asked INSS to expand to a focus on broader USAF interests in the changing requirements for extended deterrence, while retaining its interest on arms control implications.

INSS planned and conducted two workshops in Washington DC in 2011 as the centerpiece of this effort. The first focused on Extended Deterrence and NATO/Europe (22-23 June 2011), and the second on Extended Deterrence and Northeast Asia (21-22 September 2011). Each included a one-day discussion involving academics, members of the policy community, and military members. Discussions focused on the regional security environments, security infrastructures, and allies' concerns. Each workshop then included a second, one-half day session held at the SECRET level for government attendees to discuss in detail United States and specific USAF equities and issues.

At the conclusion of those two workshops it was decided that a full understanding of mid- and longer-term Service equities and requirements would necessitate a third workshop, this one with focused on Extended Deterrence and the Middle East. This workshop followed the same format as the first two, and was held 18-19 April 2012 in Washington. The series was then capped with a one-half day workshop in Washington (20 September 2012) where the regional sessions were summarized for a small group of arms control specialists to capture any cautions or advice that may have been overlooked in the region-specific discussions.

This report represents a summary and synthesis of the overall four-workshop series. It begins with a brief overview of the changing landscape of extended deterrence and then summarizes each of the workshops in turn.

### **EXTENDED DETERRENCE AND ASSURANCE**

Extended deterrence and assurance have been central elements of United States strategic policy, and central drivers of our strategic force posture, since 1949 when the US nuclear umbrella was extended over the 12 original NATO allies. Cold War extended deterrence was nuclear at its heart, and so was the assurance to allies. All four of the US Services eventually had nuclear weapons in their Europe-based arsenals to implement these commitments, and the United States also had tactical nuclear weapons deployed in Northeast Asia as our commitments expanded to that theater. Today there are at least 30 allies under America's nuclear umbrella.

Extended deterrence and assurance, however, are not simply or even primarily provided solely by the US nuclear umbrella. The entire dynamic regional security architecture—US and allies, political/economic/military—contributes to deterrence and assurance today, and this varies

significantly by region. As the United States reduces its numbers and reliance on nuclear weapons, we must reassess our regional postures and define new postures to effectively deter and assure.

US forces and systems take on complex roles in each regional deterrence and assurance calculus. The effectiveness of deterrence is determined in the minds of potential adversarial regional nuclear powers; similarly the effectiveness of assurances lies in the mind of each ally. Our regional postures must provide credible deterrence and sufficient assurance, each tailored to the specific regional security environment. Deterrence has the primary security role while assurance has an equally important nonproliferation role.

Each region presents the United States with unique extended deterrence and assurance challenges, and allied perceptions differ even within a given region. So the challenge to the United States is to shape the perceptions of each major and regional nuclear power to create effective deterrence; to shape the perceptions of each ally to assure them of America's commitment, and to dissuade any thought of developing their own national nuclear capabilities; and to do this within tight fiscal and political constraints. Given two regions with major and/or regional nuclear powers and that approximate set of 30 allies under our nuclear umbrella, this is a complex balancing act under any circumstances. It is compounded today by political commitments to also assist in ensuring security to additional friends and regions absent the nuclear deterrence foundations found in Europe and Northeast Asia.

This study seeks to identify specific regional requirements for extended deterrence and assurance today and into the mid-term future, to consolidate those requirements into a manageable set of force and system demands on the Service, and to identify concerns prior to the next round of strategic arms control negotiations so that the capabilities needed for extended deterrence are not forgotten in those processes.

## **EXTENDED DETERRENCE AND NATO/EUROPE**

### **Regional Security Environment/Model/Posture**

United States extended deterrence is most formalized to the NATO/Europe alliance partners. As developed across the Cold War and as still in place today, the model is that of a regional alliance-based posture and process. The United States has both conventional and non-strategic nuclear weapons forward deployed in theater, along with USAF dual-capable aircraft (DCA) and their crews, and the necessary nuclear mission support capabilities.. This theater is also characterized by nuclear mission sharing including dual-key relationships with several allies (and their dual-capable aircraft systems). Fifteen NATO allies have assumed burden-sharing roles in the theater nuclear mission. In addition, 27 of the 28 NATO member states (excluding France) participate in the Nuclear Planning Group that meets regularly on mission issues, and that would be involved in any nuclear contingency decision process.

### **Issues/Questions for the US Government/Department of Defense**

*Who are we deterring?* In the current NATO context, there are three main threats that the alliance seeks to deter: possible Russian revanchism and adventurism, the potential of a nuclear armed Iran, and undefined future threats. How do we shape and size forces for this "threat" package?

*What are the purposes of nuclear weapons in NATO?* Nuclear weapons play multiple stated roles including deterrence, assurance, maintaining cohesion in the alliance, and signaling. These weapons today realistically have almost solely political roles, providing alliance coupling, cohesion, and the psychological benefit of a sense of empowerment to the member states.

*How do we best assure our allies?* Our allies must have confidence that the United States will follow through on its commitment to provide security assistance in times of need. Equipment is important, but there is no specific requirement in terms of systems or numbers. However, it is essential that military forces be tangible and credible. The physical presence of American assets, both human and mechanical, within allied countries has a profound impact on perceptions of the US commitment. It is critical to understand the varying views and sensitivities of all allies. Different allies require different measures of assurance and it is essential that all have confidence that their security needs are being met.

*What is the appropriate mix of nuclear, conventional, and missile defense capabilities?* Diverse perceived threats require different combinations of capabilities. The number of nuclear weapons required for deterrence may be less than it was in the past, but it probably is not zero. How do you find the appropriate balance between too few and too many? The development of missile defense capabilities is important as a deterrent to a potential Iranian threat, but at the same time it is necessary to assure Russia that this capability is not intended to disrupt strategic stability between itself and NATO or the United States.

*Are regional models of extended deterrence transferable?* The Asian model of extended deterrence through off-shore commitments could potentially work for NATO, but it should not be forgotten that some of our Asian allies are currently unhappy with their model. The security environments have changed in both regions. Many European allies are currently feeling less threatened and see less of a need to continue the current nuclear arrangements. Our Asian allies feel more vulnerable and require greater reassurance in regard to the US extended deterrence commitment. If Europe were to shift to the Asian model, it would mean the withdrawal of US nuclear capabilities from the continent and the end of nuclear burden sharing.

*What are the lessons learned from Libya?* NATO intervention in Libya showed that European DCA are capable of successfully flying 3,000 mile round-trip strike missions. NATO has shown that it can project power in regional conflicts, but the strains of three months of aerial combat also showed that its conventional capabilities are limited. It would be difficult for NATO to carry out long term missions without extensive support from the United States. Perhaps Russia should take note of NATO's conventional constraints as a way of reducing its anxiety over supposed "Western conventional superiority."

*How could burden sharing be maintained if NATO allies ceased to host US assets on their territories?* Burden sharing is essential to an alliance like NATO; there is a need for collective security because individual states cannot be confident that they can ensure their own security. If NATO is moving toward zero nuclear weapons, should the United States take the lead? Without nuclear weapons in Europe, what could be substituted to deter Russian adventurism? Aren't nuclear weapons the ultimate tool in the Alliance's security toolkit? If US weapons were removed from the continent, would there then be a push for the elimination of British and French nuclear weapons?

## **Issues and Implications for USAF**

*What would be the impact on the Air Force if NATO allies ended their nuclear mission? If NATO ended its nuclear mission, the USAF presence in the theater would be significantly reduced. Nuclear burden sharing would essentially be eliminated. With no US nuclear assets on the European continent, NATO would take on the Asian model of extended deterrence by default. The air forces of some European countries would no longer have a mission and would likely be eliminated. This could increase the pressure on the USAF during contingencies like the one in Libya where conventional air power plays a leading role.*

*How can the USAF maintain motivation and mission competence when NATO allies, including the governments of some of the states where our personnel are stationed, advocate an end to the DCA mission? NATO as an alliance will ultimately decide the fate of US non-strategic weapons in Europe and the DCA mission, but some individual and influential states are seeking an end to the presence and mission. This presents a challenge to USAF leadership in the field.<sup>1</sup>*

*What would be the impact on the Air Force if NATO opted for continuing a nuclear mission with reliance on USAF DCA and non-strategic nuclear weapons based in CONUS? How would the USAF structure and posture its forces for a contingency response nuclear force? Would this be any different than current plans (if there are any) for such a DCA mission in the Asia-Pacific theater?*

*How can the Air Force bring clarity to what the extended deterrence posture in Europe in the future should be? Should the Air Force advocate for something different? What are the options and consequences?*

The Air Force has the opportunity to provide high-quality strategic advice and to shape the future of NATO by participating in this conversation. It is important to properly frame the debate and avoid allowing procurement issues to drive strategic decisions. It will be essential to focus on extended deterrence as an overarching concept, as opposed to dwelling upon the political decisions surrounding DCA replacement. An imperative will be to identify likely adversaries and to define precisely what actions we seek to deter and how best to influence that decision calculus.

## **EXTENDED DETERRENCE AND NORTHEAST ASIA**

### **Regional Security Environment/Model/Posture**

The United States has traditionally extended its nuclear umbrella to treaty allies in East Asia. Today these assurances explicitly include Japan, the Republic of Korea, and Australia. The INSS workshop did not address Australia, only examining the Northeast Asia region. This regional model is one of individual bilateral treaty-based postures and processes. The United States has conventional forces forward deployed in both Japan and South Korea, but does not have non-strategic nuclear weapons and delivery systems based in those countries. Nor does the United States have nuclear planning partnerships or shared nuclear command and control

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<sup>1</sup> This workshop took place prior to the May 2012 release of NATO's Deterrence and Defense Posture Review, in which the member states agreed that current nuclear sharing arrangements and alliance nuclear strategy were correct and sufficient to meet all potential threats. In this sense, the consensus agreement to the status quo by all 28 states may make the question addressed in this paragraph moot—at least for the time being.



relationships in the region. With the decision to retire the ship-based Tomahawk nuclear cruise missiles (TLAM-N), the bulk of the theater extended deterrence and assurance mission falls on the USAF. The 2010 *Nuclear Posture Review*, which announced the TLAM-N decision, was preceded by a consultation process which identified significant assurance issues and questions from our regional allies. The USAF does maintain a “continuous presence” bomber posture in the Asia-Pacific theater as a “visible” assurance asset, but the nuclear component of extended deterrence and assurance relies primarily on over-the-horizon strategic systems.

### **Issues/Questions for the US Government/Department of Defense**

*Who are we deterring?* The United States is certainly seeking specific leverage into the Democratic Republic of Korea’s decision calculus; our allies also seek assurance of a broad deterrent effect on China. Further, there is widespread belief in our allies’ populations that our deterrence umbrella should deter even conventional provocation from regional nuclear powers. How do we reconcile these perceptions against our commitments and capabilities?

*Is extended deterrence at risk in the Northeast Asia region?* With the lack of a visible and significant theater-based nuclear presence, how can we most effectively promote conventional presence, regional missile defenses, and strategic engagement to influence potential adversaries and assure our allies?

*What is the viability of the regional US force structure in the face of North Korean provocation and continuing Chinese military/strategic modernization?* Do we need a major reassessment of the US theater force structure in light of regional power military modernization and in conjunction with our “shift to Asia”? What part of any gap can missile defenses fill?

*What are the US nuclear red lines for China and North Korea? Should we maintain strategic ambiguity, or publicize our red lines?* For a long time we considered the strategic challenges in Northeast Asia a “lesser included supplement” to planning for conflict with the Soviet Union. Have we fully moved this region to its own separate category for strategic policy, strategy, assessment, targeting, and everything that goes with a dynamic deterrence posture?

*Do our allies require more visible signals of assurance today?* Are our policies, strategies, forces, military cooperation, and strategic engagement programs with Japan and South Korea adequate to deliver our desired assurance outcomes? Are there additional measures we could (and should?) take, especially to meet their requests for increased roles in nuclear operational planning and cooperation more aligned with the NATO model?

### **Issues and Implications for USAF**

*In what way might the Air Force seek improved relations with the Chinese military?* Lowering regional tensions and wariness of Chinese military modernization would contribute to a lessening of tensions in the region and contribute to overall assurance of our allies. What roles could (should) the USAF play in engagement with the PLAAF/Second Artillery?

*Is there a role for the DCA F-35, including the DCA version, in providing extended deterrence guarantees to US allies in Northeast Asia?* Planning for regional DCA deployment, particularly combined planning with our regional allies, would have significant operational benefits in addition to strong assurance outcomes. In a time of crisis, consideration might also be given to actual deployment of USAF DCA airframes to the region. Should the USAF lean forward in these areas?

*Does the Air Force require additional bases and/or nuclear deployment support infrastructure in the Pacific region for extended deterrence and assurance? How does this mesh with the Air-Sea Battle concept airpower requirements? Does the USAF need a regional basing and infrastructure strategy/plan for Northeast Asia support?*

*Has the Air Force studied how it might best conduct a nuclear strike in the Pacific region were its systems/personnel called upon to do so? Should the USAF advocate for specific training, including exercising limited nuclear warfighting scenarios in the Northeast Asia region?*

## **EXTENDED DETERRENCE AND THE MIDDLE EAST**

### **Regional Security Environment/Model/Posture**

While the NATO model is one of extended deterrence to and through a regional alliance, including forward-based nuclear forces and dual-key operations, and the Northeast Asia model is built upon multiple bilateral treaties without nuclear weapons presence or mission burden sharing, the Middle East is characterized by a lack of formal defense treaties and a limited conventional force footprint. The states of the region prefer informal, handshake arrangements, often made out of the public eye. Further, while Europe and Northeast Asia host major and regional nuclear powers, United States policy in the Middle East is to prevent Iran from attaining nuclear weapon status and to concurrently dissuade our regional friends from seeking their own nuclear weapons in response. While all elements of United States policy contribute to the effort to prevent Iran's development of nuclear weapons, the US military has a central role in assuring and providing conventional defense assistance to our regional friends. This assurance depends on our continued forward basing in the region, US arms sales and cooperation, multiple informal bilateral security arrangements, and joint exercises with regional partner forces. Emphasis today is on credible assurance and crisis stability for this region.

### **Issues/Questions for the US Government/Department of Defense**

*What roles can the US military play in contributing to the success of the national policy of preventing Iran from gaining nuclear weapons status? Are the forces and postures best suited for prevention also suited to provide extended deterrence should Iran cross the nuclear threshold?*

*What are the most effective punishment and denial strategies for prevention, extended deterrence, and assurance? What forces, posture, and deployment pattern is needed for these effects? What mix of offenses and defenses best meets mission needs?*

*What if Iran stops nuclear weapons development at a stage of nuclear latency? Do these forces contribute to freezing or reversing that status? And do these forces/postures best contribute to assuring our friends in the event of these developments?*

*If the threat from Iran is regional coercion, regardless of nuclear status, how does the United States best defend and assure our friends in this region? As forces are withdrawn from the region, either because of our drawdowns in Iraq and Afghanistan or from our "shift" to Asia, what force presence and posture is required for this assurance?*

## **Issues and Implications for USAF**

*What roles can airpower play in prevention, extended deterrence, defense, and assurance in the Middle East? How can airpower enhance or substitute for other US forces? What air forces/presence might be required as US forces draw down in the region? What roles can remotely piloted vehicles play in this region?*

*What basing requirements are generated by these various mission sets? Does the USAF need a basing strategy to ensure effective application of airpower? What is required for credibility from airpower in this region: forward, visible presence; over-the-horizon assets; or a mix of both? What role might a “continuous presence” model like used in Northeast Asia, or a deployable DCA F-35 play in meeting regional requirements for extended deterrence and assurance?*

## **EXTENDED DETERRENCE AND ARMS CONTROL**

### **Issues/Questions for the US Government/Department of Defense**

Deterrence, including extended deterrence, is a mission in which we cannot afford to fail. We face a real need for fiscal reductions, and we must plan for nuclear reductions, but fiscal constraints are not the only—or indeed the primary—factors driving these decisions. Nuclear force reductions and restructuring must not undermine strategic stability, nor can they detract from extended deterrence and assurance.

*Can we unilaterally reduce or remove systems that are not seen as essential to United States defense and deterrence? We must use caution in reducing, removing, retiring systems that may provide leverage in future arms control negotiations or reciprocal agreements. We must also consider allies’ perceptions of system requirements at each step of the arms control process. Active consultation with stakeholders at home and abroad will be required.*

*What factors should drive our national force structure decisions? We must take care to preserve a diverse and reliable capabilities set and stockpile. This includes the weapons, delivery systems, the highly trained and motivated operators and support personnel, the infrastructure, and the command and control systems.*

### **Issues and Implications for USAF**

*As the United States further reduces its nuclear forces, how can the USAF contribute to maintaining the credibility of the deterrence/extended deterrence posture presented by its remaining systems in the eyes of potential nuclear adversaries? And how can the USAF maximize its contributions to assurance to our allies and friends?*

*What does it mean to provide extended deterrence and assurance to three regions simultaneously while also providing central deterrence? What capabilities and attributes are necessary to accomplish both? How do you convey the messages of credible deterrence and assurance to all of those various targets and partners? The USAF must be particularly sensitive to preserving those system attributes required for both central and extended deterrence at low numbers of nuclear weapons. We must not negotiate away today systems with attributes that will become essential at lower numbers tomorrow.*

## CONCLUSION

This series of workshops on extended deterrence identified many issues and questions that will require consideration by senior Air Force leaders over the near- to mid-term. In doing so, they would be well-served to keep in mind the principles laid out in a recent AF/A10 publication entitled “Principles Regarding Deterrence”:

**“Central deterrence, extended deterrence, and assurance are inextricably linked**—and become even more closely intertwined in a multi-polar, proliferated environment.

- Extended deterrence and assurance will increase in importance in a multi-polar environment.
  - Extended deterrence is a critical component to stability and is a demonstrative commitment to security alliances.
  - Assurance is critical to US non-proliferation goals and will likely grow as a national priority. These goals do not have “warfighting” driven requirements and we currently have limited analytical methods to derive those requirements.
- Demand for tangible assurance from allies and partners will increase as proliferation increases.
- Extended deterrence and assurance drive force structure and capabilities requirements. These requirements may be different than those of central deterrence.
- Attributes of the force structure may become more important than sheer numbers. . . .

**Implication:** Force structure decisions must take into account the ability of weapons and platforms to contribute not only to central deterrence but also to extended deterrence and assurance.”