



Extended Deterrence and NATO/Europe

Workshop Report

Hosted by

USAF Institute for National Security Studies

and the

UASAF Strategic Plans and Policies Division (A5XP)

SAIC Conference Center

McLean, Virginia

22-23 June 2011

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The Workshop

The USAF Institute for National Security Studies (INSS) and the USAF Strategic Plans and Policy Division (HQ USAF/A5XP) held a two-day workshop entitled “Extended Deterrence and NATO/Europe” on Wednesday, June 22 and Thursday, June 23 at the SAIC Conference Center in McLean, Virginia. The workshop examined the current status and projected future of various issues that shape the US extended deterrence posture toward NATO/Europe and provided a forum for discussion of extended deterrence issues, setting issues into strategic context, and promoting the sharing of ideas.

The workshop was conducted under “Chatham House Rules” with the goal of encouraging and facilitating open discussion based upon solid intellectual foundation. The format of the workshop included a mix of roundtable discussions and working group breakout sessions. While one day of the event was held at a classified level; this report covers only the unclassified sessions of the workshop. Speakers and panelists discussed extended deterrence in US Policy; Russia/Iran and extended deterrence to NATO/Europe; NATO/Europe and extended deterrence; sustaining extended deterrence and arms control; extended deterrence operational factors; and extended deterrence enablers. Working groups examined multidimensional deterrence; and capabilities and requirements gaps.

Extended Deterrence in US Policy

The 2010 NPR calls for a reduction in the role of nuclear weapons in US security strategy while at the same time stressing the importance of maintaining strategic deterrence and strategic stability, and strengthening regional deterrence and assurance. Nuclear weapons play a key role in deterring aggression from potential adversaries, both against the United States and against its allies and partners. While deterrence is not fundamentally a military mission, it does require that nuclear weapons be capable of use by the military. Military utility must be maintained in order for deterrence to be credible and effective. The functions and requirements of deterrence and assurance overlap, but are not identical. For example, the requirements for deterring North Korea differ from the requirements for assuring South Korea. At times it is necessary to tailor deterrence to specific regions or environments, taking into consideration factors such as geography, history, and alliance dynamics. There is a need to broaden the toolkit for assurance and deterrence by adding capabilities such as missile defense and conventional prompt global strike.

The United States is taking a leading role in the discussion on the future of nuclear weapons within the NATO alliance, where widely varying opinions exist on the subject. A view among some allies is that nuclear capabilities are less important today than they were in the past. Others recognize that these weapons play an important role in deterring threats and assuring certain members of the alliance. NATO must seriously debate what the role of nuclear weapons should be in the current security environment and discuss fundamental questions concerning the future of the NATO nuclear alliance. The ongoing Deterrence and Defense Posture Review (DDPR) is NATO’s most important debate about deterrence in many years and several important questions need to be addressed. What is the appropriate mix between NATO nuclear weapons, conventional weapons, and missile defense, considering that NATO’s conventional strength is somewhat lacking? What does it mean to have the minimum nuclear deterrent necessary? Does NATO still need nuclear sharing? If so, can it be done without forward deployed weapons? How? What is the utility of nuclear weapons? Are they usable? NATO’s military strategy is to be prepared for undefined

threats to any member state, to be capable of projecting conventional power where needed and to be capable of projecting power at strategic distances in the face of WMD counterstrike capabilities. It is essential to understand what role NATO nuclear weapons will play in this strategy.

Many NATO states are thinking about how to bring Russia closer to the West and some think that reducing or eliminating NATO's nuclear role would be a way of doing so. Other members of the alliance are looking through the lens of the Middle East and a possible nuclear capable Iran. Other states do not want to let the United States down by reducing their contribution to the nuclear mission. While the alliance may not require as many nuclear weapons as it did in the past, it is important to strive for nuclear "right-sizing" as opposed to simply "down-sizing." There are several scenarios in which the use of NATO tactical nuclear weapons could be considered: a regional power conflict; a major power conflict; or a Russian de-escalation attack. With these scenarios in mind, it is clear that the appropriate number of NATO nuclear weapons is not zero. As the DDPR gathers momentum, it appears that the number of NATO member states that think that now is the time to eliminate tactical nuclear weapons in Europe may be shrinking. It is right to create conditions for further reductions in nuclear levels, but as long as the security environment requires, safe, secure, effective, and reliable nuclear capabilities, those must be maintained.

Russia/Iran and Extended Deterrence to NATO/Europe

The competition among the ruling factions within Iran is intensifying with current decision making dynamics favoring two parties: the traditional right, lead by Supreme Leader Ali Khamenei, and the ultra conservatives, led by Mahmoud Ahmadinejad. Though there are serious tensions between the two, both factions consist of pro-nuclear hardliners that harbor a deep distrust of the West and are wary of potential US-led regime change efforts. With Teheran deftly advancing toward a nuclear weapons option, prospects for ameliorating the current adversarial relations with Iran are dim. The hardliners believe that the correlation of forces is moving towards them; that political, economic and security trends are shifting in their favor. Ahmadinejad views himself as the vanguard of a new anti-Americanism and has taken the initiative to build ties with Russia, China and South America. Due to the internal political commotion within Iran, any talk of détente with the West would equate to domestic political suicide.

On the current trajectory, it is likely that Iran will acquire nuclear weapons. Iran is getting closer to a nuclear breakout potential and the nuclear shadow of Iran for NATO is growing. Iran is currently enriching uranium without any convincing civilian rationale. It is estimated that the current stock of uranium would be adequate to fuel 2-3 fission weapons, and the IAEA assesses that Iran is technically capable of assembling an implosion device. Iran has tested missiles up to the 2,000 km range and has put two satellites into orbit. Iranian missiles of that range would put all of Israel and most, if not all, of Turkey at risk.

Russia faces dilemmas on both its eastern and western borders which reinforce its perception that nuclear weapons are required for deterrence. Russia fears that a conventional air strike against its nuclear sites coupled with European missile defenses could severely diminish its second strike capability, creating an unstable deterrent. Russia is determined to keep its tactical nuclear capabilities in order to deter China and to counter potential nuclear proliferation by its neighbors. A recent attempt to reform the Russian military has failed and Russia perceives that it has a significant conventional inferiority in comparison to potential adversaries. Greater reliance on nuclear capabilities provides Russia with an economical means of protecting its vital interests. By

maintaining and modernizing its nuclear capabilities Russia feels that it can compensate for its conventional shortcomings, deter aggression and intimidate its neighbors without fear of reprisal.

Russia has a desire to be equal partners with the United States, but the relationship is strained because terms dictated by Russia are unattainable and unacceptable to the West. Russia believes that the United States often acts as a rogue element which carries out operations with or without support from the international community. Russia views European missile defense as a direct threat to Russian security and its vital interests. Any major technical advances by the United States are causes for grave concern in Russia, and it seeks to secure guarantees that advanced technologies will not be used against Russia, or that it be provided with comparable technology. Nuclear proliferation by other states is another concern for Russia. It acknowledges that Iran is progressing toward a nuclear capability, but maintains that Iran is not a threat to the United States. Russia does not want to see a war in the Middle East, but neither does it want the United States and NATO to be capable of dictating the actions of other states.

Russia and Iran have never been strategic partners, but they have been guardedly cooperative at times regarding overlapping interests. Russia will continue to engage with Iran because it sees it as a rising power in the Persian Gulf and the Middle East. Russia does not want to see a nuclear Iran, but is not very concerned about the possibility because it does not believe that a nuclear Iran would pose a direct threat Russia. Russia perceives Iran as significantly less threatening than the United States. However, Russia is concerned about the possibility of Iranian turmoil having a spillover effect into Russian territory. A regional catastrophe, potentially involving considerable numbers of Iranian refugees streaming across the Russian-Iranian border, could result if there were to be an internal political crisis within Iran or a US or Israeli attack on Iran's nuclear program or infrastructure. If the United States or Israel were to carry out a strike against Iran, Russia would not overtly take Iran's side, but would distance itself further from the United States. Russia is unlikely to do anything that might cause Muslim anger to be focused against it.

NATO/Europe and Extended Deterrence

There are currently 15 NATO member states involved in nuclear burden sharing, 27 involved in planning, and 28 involved in policy. There are varying views among the NATO member states regarding the future of nuclear weapons and nuclear burden sharing within the alliance. A recent study by a European anti-nuclear organization showed that as many as one-half of NATO states support the end of nuclear weapons in Europe and the removal of all US nuclear weapons from the continent; ten states are ambivalent but would not stand in the way of the end of the nuclear mission; and only three states oppose the removal of US nuclear weapons from Europe. While the numbers in this study are open to debate, the trend in member state attitudes toward the removal of remaining US forward-deployed nuclear weapons is evident. In an April 2011 speech to NATO foreign ministers US Secretary of State Clinton affirmed that as long as nuclear weapons remained in existence, NATO will continue to be a nuclear alliance. It was asserted that NATO will retain safe, secure and reliable nuclear weapons; that burden sharing among the allies is fundamental; that the allies need to broaden extended deterrence against a range of potential threats; and that Russia's large tactical nuclear weapons arsenal needs to be included in any future nuclear reduction agreements. In a June 2011 speech on NATO's future US Secretary of Defense Gates confronted the member nations about the lack of burden sharing among the allies and warned of declining interest on the part of the United States to continue carrying the majority of the financial burden of

providing security to the alliance. The United States is currently paying more than 75% of NATO expenses.

Despite the reluctance of some members to continue supporting the nuclear mission, there are compelling reasons for maintaining nuclear burden sharing. NATO nuclear weapons provide a deterrent against existential threats to alliance members; they are indispensable for linking US and European security; they discourage proliferation by allies; they create uncertainty in the minds of potential adversaries; and they could be useful as bargaining chips for future arms control negotiations. Alliance cohesion would be severely strained if nuclear weapons were removed from Europe as some allies would feel increasingly vulnerable. Some advocates of eliminating NATO nuclear weapons claim that Russia may reciprocate by reducing the number of its nonstrategic weapons, but that is far from certain. Further, there would be strong resistance by France to any drive to end the NATO nuclear mission or remove the remaining US warheads from Europe.

There is widespread commitment to NATO throughout the alliance, but at the same time there has been a profound shift in support for the nuclear mission by some states. Strategic cultures have been drifting apart in ways that effect NATO policy. There are largely hidden divisions within the alliance, particularly between geopolitically vulnerable states and geopolitically sheltered states. The Baltic States, Turkey and Poland consider themselves to be geopolitically exposed and feel that they are suffering from a reassurance deficit. These states tend to be pro-nuclear and consider nuclear deterrence essential to their security. Other states, such as Germany, perceive themselves as being geopolitically protected. These states tend to be anti-nuclear and pro-arms control. They would like to see nuclear weapons reduced and eliminated through arms control negotiations but would not be opposed to unilaterally eliminating NATO nuclear weapons should Russia prove unwilling to reciprocate.

To date, burden- and risk-sharing within NATO has been an important attribute of the alliance. The United States has provided equipment and several European member states have hosted US forces on their territory. The actual physical presence of US military and civilian personnel within NATO Europe has played an important role. Today, some NATO states are contemplating changing the burden sharing equation by asking the United States to remove its nuclear assets from their territory. Further, some of these states are reluctant to replace their aging dual capable aircraft (DCA) with the next generation of equipment. This creates challenges for burden sharing and for the future of US nuclear weapons on European soil. As it stands, DCA are the only remaining delivery systems for NATO nuclear capabilities. What would happen to nuclear burden sharing within NATO without DCA? If all US weapons were removed from the continent, and the only delivery vehicles were based out of the United States, burden sharing would become very one-sided. Further, without DCA and the NATO nuclear mission, the national air forces of some member states could become obsolete.

There are a variety of arguments supporting the elimination of nuclear weapons in Europe. It is claimed that NATO does not have any enemies that need to be deterred. With the Cold War in the past, Russia is no longer considered a threat to NATO but rather an emerging partner. Further, NATO holds conventional superiority over the Russian military. While Russia still maintains its nuclear capability, it is not believed that Russia poses a nuclear threat to the alliance. Furthermore, it is argued the existence of NATO nuclear weapons contributes to Russian feelings of alienation and insecurity. Another argument is that nuclear weapons are virtually unusable because there would never be a consensus among all members of the alliance to authorize their use. There is an

argument that missile defense capabilities can substitute for nuclear deterrence. Nuclear weapons are expensive to maintain and some argue that they do not conform to the nonproliferation agenda. Finally, some assert that there is a moral obligation to pursue a nuclear free world.

Sustaining Extended Deterrence and Arms Control

When thinking about possible future paths for Russia-US strategic arms control beyond New START some suggest that the United States work to complete its reductions in less time than that allotted by the treaty. If Russia were to drop below the New START limit and approach a number near 1,000, the United States could consider doing so as well as a way to provide a disincentive for Russian development of a new heavy ICBM. At this time, it does not appear that Russia is seriously interested in engaging in further arms control negotiations once the limits of New START have been reached. Russian non-strategic nuclear weapons (NSNW) are of particular concern to the United States and NATO because Russia still has several thousand of them. Until negotiations can take place, it may be prudent to pursue confidence and security-building measures with Russia which would alleviate the concern about NSNW. Weapons could be consolidated at central locations located farther from the border, improved transparency measures could be developed, and data sharing could be increased. There is also the possibility of parallel unilateral reductions conducted by the US/NATO and Russia. The United States would like to see a possible trade off in the form of US reductions of nondeployed weapons in return for reductions in Russian NSNW. However, at this juncture, Russia will likely be reluctant to make any concessions because of uncertainty regarding its future political environment. Further, it will be difficult to negotiate the disparity of the numbers of NSNW with Russia because they rely on those weapons for compensation of their conventional inferiority vis-à-vis China.

Working Group Key Themes

Who are we deterring? When thinking about extended deterrence, it is essential to be clear about who and what is being deterred. In the current NATO context, there are three main threats that the alliance seeks to deter: Russian revanchism and adventurism, a nuclear armed Iran, and undefined future threats.

What are the purposes of nuclear weapons in NATO? Nuclear weapons play multiple roles including deterrence, assurance, maintaining cohesion in the alliance, and signaling. Nuclear weapons provide a psychological benefit to the alliance and give member states a sense of empowerment.

How do we reassure our allies? For allies to be assured they 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 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 isn't 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 nuclear threat, but at the same time it is necessary to assure Russia that the capability is not intended to disrupt strategic stability between itself and NATO.

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. The European allies are currently feeling less threatened and see less of a need to continue the current trend. The 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 has shown 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 strain of three months of aerial combat also show 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."

What would be the impact on the Air Force if NATO allies ended their nuclear mission? If NATO ended its nuclear mission, the Air Force would likely not be disappointed. 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, Belgium, for example, 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 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 toolkit? If US weapons were removed from the continent, would there then be a push for the elimination of British and French nuclear weapons?

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 consequences? The Air Force has the opportunity to provide high-quality strategic advice and to shape the future of NATO by participating in the 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. It will be imperative to identify likely adversaries and to define precisely what actions we seek to deter and how best to influence the decision calculus.

Summary and Themes

Extended deterrence requires the United States to adopt the burden of risk in order to provide for the security of its allies. Allies to whom deterrence is extended will naturally question the resolve of the United States to come to their defense should the need arise. Deterrence further requires a definition of who is to be deterred and with what. The obvious objects of deterrence are unfriendly powers that are willing to take actions against the United States and its allies. The means of extended deterrence have traditionally been nuclear weapons, specifically non-strategic nuclear weapons in the case of NATO/Europe. Recently there has been a rising tide of political sentiment within Europe that is in opposition to the tools of extended deterrence. This may be due in part to U.S. shyness at addressing its goals and the purpose for extended deterrence. There is a need for the United States to assert leadership in the area of extended deterrence in order to regain the confidence of allies that may be questioning the resolve of the United States and the utility of U.S. nuclear weapons.

When it comes to nuclear deterrence – extended or otherwise – the question arises: how much is enough? Some suggest that there is a “minimum” level that would be adequate for effectively maintaining deterrence. What is that level? How can it be determined? Others worry that a minimum effective level of deterrence is a concept that is not cautious enough to maintain security. The concern is that the United States may default to a level of capability that is below the level required for extended deterrence. By reducing to low numbers, we may essentially be depleting our margin of safety. While it is difficult to comprehend all of the nuanced factors that go into effective deterrence, it is appropriate to continue striving to identify the appropriate mix of capabilities. One thing that is certain is that changing circumstances in the international security environment demand new approaches to the traditional concepts of deterrence. Extended deterrence is a benefit to global security and it is likely to grow in importance as new threats arise. In the case of the United States Air Force, there are three fundamental requirements of effective extended deterrence which the Air Force must strive to maintain: effective, viable command and control; survivable nuclear forces which are safe, secure and reliable; and a culture of warrior excellence.

Key Questions for Senior Air Force Leaders

- 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?
- 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?



**DEPARTMENT OF THE AIR FORCE
USAF INSTITUTE FOR NATIONAL SECURITY STUDIES
USAF ACADEMY, COLORADO**

**The USAF Strategic Plans and Policy Division
&
Institute for National Security Studies
Extended Deterrence and NATO/Europe Workshop Draft Agenda
SAIC Conference Center, McLean, VA
22-23 June, 2011**

Wed, 22 Jun “Extended Deterrence Requirements

- 0800-0830** **Intro/Overview**
AF/A5XP, SAIC, INSS
- 0830-0945** **Extended Deterrence in US Policy**
(Facilitator: Jim Smith, Institute for National Security Studies)
Brad Roberts, OSD-Policy
- *What are the current and near-term issues revolving around extended deterrence in general, and specifically with extended deterrence to the NATO/Europe region?*
 - *The longer-term issues? How can the United States (and particularly the US military) help shape extended deterrence for the long term?*
- 1000-1200** **Roundtable: Russia/Iran and Extended Deterrence to NATO/Europe**
(Facilitator: Paul Bernstein, National Defense University)
John Parker, National Defense University
Steve Blank, Strategic Studies Institute
Greg Giles, SAIC
- *What are the central trends in and drivers of Russian strategic policy, strategy, posture?*
 - *Is Russia most properly a subject of or partner in NATO/Europe’s strategic stability?*
 - *What can and should the United States and our NATO/European partners do to ensure a productive strategic relationship with Russia?*
 - *What about Iran’s strategic policy, strategy, and posture?*
 - *What can and should the United States and NATO/Europe do to moderate the adversarial relationship with Iran?*
- 1200-1300** **No-Host Lunch**

- 1300-1415 Roundtable: NATO/Europe and Extended Deterrence**
(Facilitator: Jeff Larsen, SAIC/Institute for National Security Studies)
Michael Ruehle, NATO
Paul Schulte, Carnegie Europe and Nuclear Policy Program
- *What are the primary European perspectives on strategic threats and positions on United States extended deterrence and assurance in the face of those threats?*
 - *How can the United States best assure the alliance and its individual allies today?*
 - *How can we enhance perceived deterrence and assurance into the longer term?*
- 1415-1515 Roundtable: Sustaining Extended Deterrence and Arms Control**
(Facilitator: Jim Smith, Institute for National Security Studies)
Steve Pifer, Brookings
Jeff McCausland, Strategic Studies Institute
- *What are the likely future paths of Russia-United States strategic arms control beyond the New START Treaty?*
 - *Is strategic engagement accompanied by coordinated but unilateral action a better alternative?*
 - *How do the Conventional Forces in Europe treaty and conventional forces in general impact upon the strategic positions?*
 - *How do tactical nuclear weapons levels, postures, and strategies interact with conventional and strategic nuclear positions?*
- 1530-1700 Working Groups: Multidimensional Extended Deterrence**
(Facilitators: Jeff Larsen, SAIC/Institute for National Security Studies; Drew Walsh, SAIC)
Discussion Questions:
- *What are the views of NATO allies on Russia's involvement as both a threat and as a member of the NATO-Russia group? How much leeway should Russia be awarded?*
 - *What might be the impact on assurance of reduction in numbers of strategic systems, reduction in individual legs of the Triad, change in posture (e.g. alert status), or reductions in conventional forces in theater?*
 - *In what ways do regional initiatives (e.g. missile defense) complement deterrence and bolster assurance? Do such systems permit changing the current extended deterrence construct or decreasing capability and at the same time maintaining or improving assurance?*
 - *How do we communicate/signal effective deterrence to subjects of that deterrence, and effective assurance to allies/partners in this environment? (Forward presence? Shared commitments? Combined planning?)*

Thu, 23 June “Extended Deterrence Programs”

- 0800-0815 Day Two Overview**
Jim Smith, Institute for National Security Studies
- 0815-0945 Roundtable: Extended Deterrence Operational Factors**
(Facilitator: Drew Walsh, SAIC)
Lt Col Bernd Jansen, SHAPE
Frank Wolf, JCS/J-5
Col Lee Wight, AF/A-8XS
- *What are the central issues into the near-term future that affect our extended deterrence posture toward NATO/Europe?*
 - *How do ongoing programs and plans address these issues?*
- 1000-1130 Roundtable: Extended Deterrence Enablers**
(Facilitator: Jeff Larsen, SAIC/Institute for National Security Studies)
Jon Trexel, SAIC STRATCOM
Jeff Everett, Sandia Labs
Pepe DeBiaso, OSD-Policy
- *How are strategic innovation, systems rejuvenation and adaptation, and new systems implementation enhancing our extended deterrence posture and capabilities toward NATO/Europe?*
- 1130-1230 No-Host Lunch**
- 1230-1430 Working Groups: Capabilities and Requirements Gaps**
(Facilitators: Jeff Larsen, SAIC/Institute for National Security Studies; Drew Walsh, SAIC)
Discussion Questions:
- *How do planned allied modernization programs affect US roles in and commitment to the NATO construct and mission?*
 - *What are the effects of missile defenses on the perceived requirements for DCA or other burden sharing platforms/support?*
 - *Are there constructs such as combined NATO crews that could contribute as extended deterrence in the future?*
 - *What is a possible future burdens haring construct (alternative to NATO DCA)? Are alternative constructs viable under current arms control regimes?*
- 1445-1545 Working Group Reports: Implications for USAF**
Working Group Facilitators: Jeff Larsen, SAIC/Institute for National Security Studies; Drew Walsh, SAIC
Report on and discuss results of Working Group Discussions
- 1545-1615 SME Synthesis**
(Facilitator: Jim Smith, Institute for National Security Studies)
Forrest Waller, National Defense University
Synthesize major issues, findings, and remaining questions from the workshop
- 1615-1645 Takeaways/Way Ahead**
A5XP/INSS

Workshop Participants

Dr. Justin Anderson, SAIC
Mr. Richard Benson, A5XP
Mr. Paul Bernstein, NDU
Dr. Steve Blank, SSI
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Lt Col James Penrod, EUCOM
Lt Col Louis Perret, INSS
Amb (Ret) Steven Pifer, Brookings
Dr. Bradley Roberts, OSD/P
Mr. Michael Ruehle, NATO
Mr. Paul Schulte, Carnegie
Lt Col Charles Smith, DTRA
Dr. James Smith, INSS
Ms. Tami Stukey, SAIC
Lt Col John Sweeney, A10
Mr. Bob Tilson, A10
Mr. Jonathan Trexel, SAIC
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Mr. Forrest Waller, NDU
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Col Lee Wight, A8XS
Mr. Frank Wolf, JCS J5
Ms. Amy Woolf, CRS