The Interoperability Challenge

Interoperability is as much or more about human teamwork than it is about compatible machines and processes. The North Atlantic Treaty Organization (NATO) operational deployments, without respite since 1992,1 have spawned a nascent culture of multinational planning and operational teamwork among a host of militaries. This coalition culture is emerging in the same way as the joint operations culture has grown across the U.S. military since the watershed Goldwater-Nichols Department of Defense Reorganization Act of 1986.

A generation of military leaders has become knowledgeable, comfortable, and successful (though often under great stress) in multinational operations. By 2014, when NATO anticipates turning over its operations in Afghanistan to national responsibility, allied militaries will have been deployed together in combat and postconflict land, maritime, and air operations for more than 20 years. Junior through senior leaders will have experience in planning operations and commanding forces in life and death situations. A substantial percentage of these will have experienced multiple deployments alongside the U.S. military. Arguably, the Alliance has reached a high water mark in interoperability.

All this experience has generated a wealth of allied forces capable of working with the United States across a broad range of missions. Many Allies have made at least their most capable forces interoperable with counterparts in the U.S. military. There is now a multinational reservoir of military leaders skilled at planning and commanding in NATO- and U.S.-led operations. U.S. leaders and forces have likewise gotten much better at operating with other nations. Even U.S. special operations forces (SOF) now operate with allied SOF units. In

Building Future Transatlantic Interoperability Around a Robust NATO Response Force

by Charles Barry

Key Points
◆ The centerpiece of U.S. military doctrine is joint coalition operations undergird by a high level of interoperability with other militaries. Sustained interoperability with friendly nations is a vital force multiplier that must be nurtured, protected, and advanced. NATO’s 28 members and 41 partners (7 in Asia) are the enduring core of these potential partners.
◆ After ISAF draws to a close, a revitalized NATO Response Force (NRF) will be the anchor of the Alliance’s enduring interoperability exercise and training strategy.
◆ The United States should approve steps to optimize its NRF commitment to sustain transatlantic interoperability in an era of reduced operations.
◆ The most salient immediate steps are to take a robust approach to U.S. participation in the NRF; designate U.S. European Command as global executive agent for interoperability; give major interoperability requirements a special budget line, outside Service budgets; revamp USEUCOM force posture to optimize multinational training, exercises, and crisis response; and tie the staffs of USEUCOM and each of its components close to the NATO Command Structure.
**Building Future Transatlantic Interoperability Around a Robust NATO Response Force**

**National Defense University, Institute for National Strategic Studies/Ctr for Transatlantic Security Studies, 260 Fifth Avenue Building 64 Fort Lesley J. McNair, Washington, DC, 20319**

Approved for public release; distribution unlimited

**Standard Form 298 (Rev. 8-98)**
Prescribed by ANSI Std Z39-18
short, multinational skills have reached an all time high, though there is more road ahead than already traveled.

However, this accrued wealth of interoperable capability may be at its apogee, soon to decline as the result of two looming events. First, Alliance leaders took the decision in 2011 to shed approximately 4,200 multinational billets from the NATO Command Structure (NCS) by 2014. Second, drawdown of the International Security Assistance Force (ISAF), and subordinate commands, will close out approximately 2,000 additional multinational billets in Afghanistan also by 2014. In short, 2 years from now, NATO will have 6,500 or so fewer positions—some 40 to 50 percent of the current command structure—in which to immerse the next generation of officers in the multinational command and control culture the Alliance now enjoys. The drawdown of ISAF (and to a lesser extent, the Kosovo Force [KFOR]) will also mean the end of deployments, bringing to a close most interoperability opportunities for forces as well as commands.

NATO is the undisputed epicenter of interoperability between American forces and other militaries

Once these impending events come to pass, how will the United States maintain the ability of its forces to work with Allies and vice versa? Time is short to stand up an affordable training and exercise regime to preserve and sustain this multinational culture and expertise in coalition planning, command, and operational skills. On the cusp of future crises, it will be too late to rebuild the expert knowledge that will soon begin to fade.

Almost any U.S. Servicemember will say it is far more difficult to work with Allies than to go it alone with a U.S.-only force. Allies, more often than not, have less experience, less developed military skills, and less capable equipment than U.S. forces. Many Allies are not a one-for-one replacement for U.S. forces, and most require support—some of it substantial. Yet operating with Allies is an overwhelming advantage over going it alone. Many operations would be far more difficult without the cultural knowledge and language skills that some partners bring with them. As many as 40,000 personnel from almost 50 Ally and partner nations have served in ISAF alongside U.S. forces in Afghanistan. Allies have participated in generating the required forces, in the risks, and in the casualties. That has meant fewer U.S. troops deployed and a reduced pace of operations. The political, diplomatic, and financial advantages of having Allies deploy, fight, and invest alongside the United States are beyond refuting. There is also a powerful military advantage, notwithstanding the caveats Allies often append to their participation mainly due to domestic political pressures.

Interoperability with Allies in coalition warfare is at the core of U.S. defense policy and military doctrine. These are enduring fundamentals of the way we conduct operations. The January 2012 Defense Strategic Guidance, the most recent top-level Department of Defense (DOD) strategy document, emphasizes the importance of Allies and partners 60 times in its brief eight pages. The latest version of the military’s capstone doctrinal publication refers to interoperability 87 times in just 200 pages.

NATO is the undisputed epicenter of interoperability between American forces and other militaries—and its reach has only expanded since the Cold War. NATO membership has expanded from 16 to 28 countries, and 41 formal partners have been added from across Europe, the Middle East, and Asia. All these militaries conduct operations, to a greater or lesser extent, “the NATO way”—that is, following many standardization agreements, doctrine, and tactics, techniques, and procedures (TTPs) in the conduct of operations, sharing information, participating in networks, and adhering to lessons learned. To be sure, much of what the Alliance has set out is far from universal among participants. However, what is operationally shared by members and partners is far greater than any other multinational regime and is consistent with U.S. doctrine.

The United States should be building on NATO practices as it broadens and deepens cooperation across
Asia and other regions. It would be counterproductive to develop TTPs and standards inconsistent or divorced from the NATO way. Stated differently, if South Korea and Australia want their militaries to operate together, these formal NATO partners would follow procedures mainly determined in Brussels by the United States and its Allies. In short, NATO is the driving force behind a wealth of common operating systems used by the United States as well as a host of other militaries.

Revitalizing the NRF

The NATO Response Force should be perhaps the central platform for sustaining transatlantic interoperability. For the reasons cited above, the United States has to get the most return from its deeper commitment to the NRF. Engagement cannot be viewed as an isolated commitment; it should be seen as the means to preserve and grow the capacity of NATO members and partners for future operations.

The NRF faces two main issues at the close of 2012, one for the United States to decide and one for Supreme Headquarters Allied Powers Europe (SHAPE) to recommend to the Military Committee. First, the United States must adopt a plan to fulfill its commitment to support the NRF with a U.S.-based Brigade Combat Team (BCT) on an enduring basis. Second, the Supreme Allied Commander Europe must propose a way to link the NRF to the future NCS by means of an operationally effective joint chain of command.

Defining the Future U.S. Commitment to the NRF

Secretary of Defense Leon Panetta announced at the 2012 Munich Security Conference that a U.S.-based BCT will contribute to the NRF. He also declared that a U.S. battalion would rotate to Germany in order to take part in exercises and training as part of the U.S. commitment to sustaining land force interoperability. These unprecedented commitments were accompanied by news of the pending withdrawal of the last heavy BCT from Europe. DOD spokesmen explained that the remaining heavy BCTs had spent much of their time in Iraq and Afghanistan. Furthermore, they noted that because the new NRF force would deploy and train with Allies in Europe, the net effect would be greater transatlantic engagement.

In practical terms, the United States will designate a portion of a BCT (a battalion task force with enabling elements) to deploy to Europe for annual NRF training and exercise regimens. This force will train for Article 5 missions and for non–Article 5 contingency operations. Over time, the planning, training, and exercises will help keep transatlantic interoperability strong and foster transformation among allied militaries. At the same time it will give NATO an operational force should the North Atlantic Council chose to act.

A U.S. commitment to the NRF should have two enduring objectives: demonstrate U.S. leadership in maintaining strong transatlantic military ties via multinational engagements and preparedness in a post-ISAF environment; and revitalize the NRF as a tool to improve transatlantic interoperability—the building of allied and partner capacity to work with the United States in ever better ways post-ISAF.

There are some immediate tasks.

Design a Policy That Will Keep the U.S. NRF Commitment Strong over the Long Term. The first and most critical step is to meet the full intent of the U.S. commitment to NATO. This should include a regime of training and exercise participation that is met without fail, year in and year out, and over the long haul. The plan should make clear, with reasonable flexibility, the size and nature of the force that will join the NRF. A reasonable commitment would be a battalion task force...
NATO Response Force Highlights

- Origin: November 2002 NATO Summit in Prague.
- Two missions: To deploy rapidly for combat and crisis response and to serve as a catalyst for transforming national forces from static defense to deployable and sustainable response forces.
- Initial concept: 25,000-member multinational joint force.
- Full operational capability: November 2006.
- NRF component commands come from nations (NATO Force Structure) and are organized under either a lead nation or one of the multinational commands:
  - Nine land component commands include seven High Readiness Corps (EuroCorps, FR, GE/NL, IT, SP, TK, UK/ARRC) and two corps at lower readiness (GR and Multinational Corps Northeast)
  - Five high readiness maritime forces (FR, IT, SP, UK and STRIKFOR NATO)
  - Four Joint Force Air Component Commands (JFACC)–FR, GE, IT, and UK
  - In addition to these, the Danish Rapid Reaction Division and 3rd UK Division have been certified as land component commands for an NRF rotation.
- Under the new NATO Command Structure, a deployed NRF is expected to most often be under the command of either JFHQ Naples or JFHQ Brunssum.
- In January 2012, NRF rotations went from being 6 months to a full calendar year. This means a given national corps headquarters will only participate in the NRF once every 9 or 10 years. Participation would involve months of prior preparation as well as the 1 year in NRF ready status, followed currently by disbandment of the NRF rotation force.
- The primary NRF utility to date has been as a catalyst for force transformation by improving the deployability, usability, and readiness of participating forces. The NRF has not deployed substantially as it was envisaged, that is, as a combat-capable crisis response force. Only select supporting forces have been deployed, mainly for humanitarian missions.
- The IRF is a joint force comprised of a brigade-size land force plus air, maritime, and special operations forces components. It also can include a chemical, biological, radiological, and nuclear defense task force. The size and composition of the RFP is dependent on what nations are willing to offer.
from a BCT offered to each NRF rotation. This should be a heavy battalion force whenever possible to offset the light and medium forces already in theater. For the most part, the battalion should be committed to the Response Force Pool to allow Allies more opportunities to participate in the Immediate Response Force (IRF) itself. However, the United States should have the flexibility to participate as one of the three IRF battalions. The United States should also hold out the possibility of providing IRF deployable brigade headquarters or even overall command of a land heavy operation with a U.S.-based corps. These levels of participation should be integrated into future NRF rotations over time.

**Begin U.S. Engagement in Activities of the NRF in 2012.** The United States should not wait until 2014 to begin participating in the NRF. Engagement in planning, coordination, observation at command post and logistics exercises, and other actions should be considered. A first event should be planned soon before the last of the U.S. European Command (USEUCOM) Heavy Brigade Combat Teams (HBCTs) is withdrawn.

**Designate USEUCOM as Principal for U.S. participation in the NRF and as Global Coordinator for Interoperability.** NRF joint force planning should become a primary portfolio for USEUCOM across all components—including SOF. Special attention should be given at U.S. Army Europe (USAREUR) to the new U.S. commitment in land forces to NRF preparation and standby exercises. USEUCOM should ensure NATO standards are common to all U.S. partners worldwide.

**Make U.S. Maritime, Air, SOF, and Enabling Support to the NRF Better Known.** The United States has provided these assets to the NRF on an informal case-by-case basis rather than regular commitments. This policy need not change, yet USEUCOM should seek maximum interoperability value when any U.S. assets are exercising with the NRF, whether in a live operation, planning exercises, or a simple tabletop map exercise.

**Rotate Army and Marine Units to Europe for Training Outside of the NRF.** There are many excellent training facilities in Europe that could be used by Active and Reserve U.S. units to hone deployment and interoperability skills—in Germany, Norway, Poland, Romania, and Spain to name but a few. As operations draw down, training deployments should be able to ramp up. These areas will complement sites in the continental United States.

---

**Preposition BCT Equipment Set in Europe.** The cost of deploying a BCT headquarters or a battalion task force and enabling forces to Europe for either multinational training or NRF rotation exercises could be reduced by prepositioning equipment in theater. The Marine Corps recently revised its prepositioned equipment plan in Norway, and the Army has the Cold War example of POMCUS (Prepositioned Overseas Material Configured in Unit Sets) stocks to draw on. The cost advantages of investing in a prepositioned “flex” set of brigade equipment—stored and maintained in climate-controlled readiness versus repetitive equipment deployments by varying types of units—must be determined by thorough analysis. A heavy equipment set should be the basic prepositioning model. However, additional equipment modules would provide the flexibility for NRF participation by other types of BCTs. Both light and medium U.S.-based units could also take advantage of training areas in Europe and association with Allies. Prepositioned equipment, locally maintained and regularly exercised, is also a visible testimony to Allies and potential adversaries of enduring transatlantic bonds in the wake of troop withdrawals. A final advantage is the hedge prepositioned equipment provides against factors that might reduce or cancel U.S. NRF training, factors such as the availability of shipping assets, cost of fuel, international tensions, and

---

**regular training of European forces in North America should become a robust long-term program**
Persistent NRF Shortcomings

The NRF is one of NATO’s most successful initiatives. Yet as it enters its ninth year in 2013, the project suffers from two challenges that have persisted since its inception. These are continuing force generation shortfalls and the inability to employ the NRF as intended for high-level crisis response. To these shortcomings might be added a third: the rapid dissipation of the high level of interoperability that units achieve as a result of NRF experience. Instead of maintaining some level of cooperation, the NRF task force dissolves and units return to long periods of lower readiness.

Force Generation Shortfalls. Problems in force generation have dogged the NRF almost since it was first declared to have reached full operational capability in 2006. European nations in particular, in the throes of declining budgets, slow-evolving force transformation, and competing real world requirements, have had difficulty providing the units and funds to generate the full 25,000-member force, even while maintaining active forces of over 2 million personnel (2011). In 2008 and 2010, NATO revamped the NRF program to require a much smaller Immediate Response Forces of 13,000 backed by a Response Force Pool of indeterminate size. This has eased the force-generation challenge. NRF force generation pressures should ease as nations begin to draw down operational commitments in Afghanistan and, to a lesser extent, Kosovo and other missions. If returning forces are kept together in varying levels of readiness, more forces should be available to response sooner in a crisis.

Operational Mission Obstacles. The NRF was created to give NATO a high intensity combat force, including employment in forced entry scenarios. The reasons underlying the reluctance to use the NRF more often operationally are political and financial. These are not easy to resolve; however, common funding for at least some aspects of NRF operations, such as deployment and redeployment costs, would go a long way in doing so. Another difficulty is that the NRF is designed for rapid response to small, short-duration missions, while NATO has agreed only to large, slowly evolving missions such as IFOR, KFOR, and ISAF. In addition, the NRF mission profile is for a maximum of 120 days. Few if any missions last 120 days or less, hence a follow-on force would have to be almost immediately available. NATO has not considered deploying the NRF for any major crisis response or combat mission. Small elements of the NRF have been deployed to monitor the 2004 Olympic Games in Greece and to provide humanitarian assistance in the United States (Hurricane Katrina in 2005) and in Pakistan (2005–2006 earthquake response). It is unlikely there will be more interest in committing the NRF in the future, though, in a crisis, common funding would remove one obstacle. Whether used operationally or not, the NRF provides substantial added value to NATO and nations and must be preserved as the centerpiece of interoperability generation.

NRF Interoperability Dissipated. Nations gain substantial benefit from an NRF rotation in a transformational sense—experience in deployment and crisis response that can enrich an entire national military force over time. The beginnings of multinational teamwork take root. However, “the NRF boost” quickly recedes because the present practice is to train, perform the
other issues that could make full equipment movement unwise or impossible.

**Invite More Allied Use of Training Areas/Facilities in the United States and Canada.** The limited practice of allied units training in North America could be enhanced as a technique to increase exposure to U.S. forces after announced draw downs are complete. As with U.S. units heading to Europe to train, European forces will gain crisis response experience and hone their skills in contingency deployments for operations involving U.S. and Canadian forces. Given the payoff, regular training of European forces in North America should become a robust long-term program.

There are also some longer term tasks.

**Establish a Unique DOD Budget Line under USEUCOM for NRF/Interoperability.** Resource requirements for multinational interoperability must be protected from competing Service demands. One way to do this is to give USEUCOM responsibility for a special DOD-level budget line for all interoperability. This line would be similar to the budget authority of U.S. Special Operations Command but discreet in purpose, designed to insulate robust interoperability engagement from tough budget choices often faced by the Services. Existing policy is to levy requirements such as NRF participation on the Services, who then face tough programmatic choices that invariably lead to reduced participation or longer gaps between deployments. The present “out of hide” approach invites selective compliance that weakens implementation of political decisions such as NRF participation. Establishing a single purpose budget line will fence off funds for building partner capacity to work with U.S. forces. These funds should support training in NATO TTPs, doctrine, operating concepts, and standards. Specific programs covered by an interoperability budget line might include all NRF participation as well as other rotational deployments to training with NATO Allies and partners anywhere.

**Station a Cadre BCT in USAREUR.** Cadre BCT units are being proposed informally within some U.S. Army circles, similar to U.S. cadre divisions prior to World War II. Those divisions were quickly brought up to strength in time of crisis. Cadre BCTs could provide low-cost U.S. participation in planning, training, and simulations for map and command post exercises—which account for a substantial portion of partner exercise activity. Cadre units could be dual-hatted to take on theater security cooperation or allied mentoring missions to expand the footprint of transatlantic engagement at reasonable cost. If the Army elected to organize cadre BCTs, it would be wise to consider stationing one in Europe, and it is reasonable to suggest a Europe-based cadre BCT should be a HBCT because Active Stryker and infantry BCTs are already in theater. A cadre BCT with Reserve augmentees could enhance the U.S. commitment to the NRF or command multinational forces in exercises. The views of the USAREUR commander should be fully explored in developing this proposal.

**Fund Joint Multinational Training Center in Grafenwöhr, Germany, in Part by NATO Common Funding.** JMTC has been called the “crown jewel” of USAREUR for its multifaceted, high-tech training.
infrastructure. This includes the Joint Multinational Simulation Center at Grafenwöhr, Joint Multinational Readiness Center at Hohenfels, Combined Arms Training Center at Vilseck, and Training Support Activity Europe at Grafenwöhr. These modern facilities have trained U.S. and allied forces (the latter often at U.S. Army expense) for deployment to the Balkans, Iraq, and Afghanistan. With those operations winding down and U.S. Army combat brigades in theater reduced to just two, the cost of maintaining these extensive facilities will come under close scrutiny by the Army. What is needed is to realign funding of JMTC so that it can be usable for the needs of all Allies and, where agreed, partners. The goal should be to fund JMTC as a NATO common infrastructure facility. User fees should be required but based on ability to pay, perhaps reflecting the proportionality of the NATO Security Investment Program budget itself. JMTC should be integrated with and digitally connected to other NATO training and simulation centers at Stavanger, Norway, and Bydgoszcz, Poland, as well as major national training centers such as the bilateral U.S.-Romanian Joint Task Force–East at Kogalniceanu Airbase Romania.

The United States should consider standing up a corps forward command post in Europe as it has done in Japan

Stand up a U.S. Corps Forward Element in Europe. As V Corps is withdrawn and deactivated, the United States should consider standing up a corps forward command post in Europe as it has done in Japan with I Corps (Forward). A corps forward element in Europe could readily respond to both USEUCOM and U.S. Africa Command requirements. It could be operational at low cost if collocated at JMTC or Wiesbaden, Germany, perhaps with a dual-hatted JMTC or deputy USAREUR one- or two-star commander. A corps forward element in Europe would facilitate interoperability and provide another critical symbol of U.S. commitment. In addition, U.S. corps expertise will be essential to bringing European corps up to joint command and control criteria for command of land-heavy, small joint operations as called for by the new command structure. These certifications will be a long process. The United States is the only Ally with joint-capable corps headquarters. A U.S. corps is the logical mentor for the nine European corps that must achieve this status through additional equipment, personnel, training, and ultimate certification. Locating the forward element of a U.S. corps in theater provides both a proximate advisor and model. A U.S. corps forward would also be available to participate in the NRF rotation, demonstrating U.S. leadership in meeting NATO’s requirement for nations to command land-heavy small operations under the new NCS. Finally, NATO expects to rely on the United States to provide operational command over larger major joint operations, defined as more than one deployed corps. Since the U.S. Army reorganized in 2010, the corps is the highest command level in its structure. A challenge for NATO and the United States is to test how a U.S. corps might oversee two or more allied corps in the field.

Determining the Optimum Link Between NCS and NRF

SHAPE must determine how the NRF will be linked to the smaller NCS that will come into being in 2014–2015. Will every NRF operation require a deployable command element of the NCS in addition to the NRF headquarters? Will some operations require only a NATO Force Structure (NFS) joint command and control headquarters? Should every deployed joint command, either the NRF command or a NFS deployed headquarters, be overseen by one of the two joint force headquarters (JFHQ), by one of the three NATO component commands (land, maritime, or air), or by Allied Command Operations (ACO) itself? Reporting to one of the component commands could complicate command and control if the operation grows in size, requiring a JFHQ to deploy and assume command. Reporting
directly to ACO may be equally complicated. ACO, like component commands, is nondeployable. Often the course of small operations proves unpredictable.

For the near term, the two JFHQ are the only deployable joint command and control assets available in the NCS. Under the new NATO structure each JFHQ will be capable of deploying to command one operation at a time, for up to 1 year. A single deployment is expected to require 500 of the JFHQ 850 staff complement, leaving only 350 available to oversee other operations and essential non-operational tasks, such as building partner capacity. A staff of 500 deployed may be a low estimate for a deployed four-star command. By comparison, the latest revised U.S. Army corps headquarters design includes more than 750 personnel, and these are commands at a lower echelon with fewer overall responsibilities than JFHQs. It is reasonable to conclude that the JFHQ, while fixed in size today, may not be ideal and could be quickly over taxed.

NATO Level of Ambition and NRF. Maintaining the forces and capabilities to conduct a specific number of major and smaller joint operations, in close time proximity, is called NATO’s Level of Ambition. The NRF should expect to be deployed as the initial element of any major or smaller joint operation. It may constitute the only required deploying force; however, it is expected often to be the lead force even for smaller operations. As such, and because the NRF (including its joint command element) is constituted from national forces, NATO will have to design and exercise how a deployed NRF links to the NCS.

The NRF calls for a deployable joint command from among national capabilities. Joint capable national commands have not been an area of strong emphasis in the past when NATO anticipated providing most all deployable joint command from within the NCS. NATO now intends to rely far more on national joint commands for operations. These will most often be land corps or maritime task group headquarters, and these will have to be transformed from component commands to legitimate joint commands. Plans for transformation have not been announced by NATO or nations. With few exceptions, the primary source of joint commands at the national level today is the United States, with three land corps and two comparable Marine Expeditionary Forces for worldwide contingencies. The United Kingdom and France also maintain single joint commands.

A new joint command is Germany’s multinational joint headquarters in Ulm called the Response Force Operations Command (RFOC). The RFOC, with a staff of about 760, is being offered as a permanent joint deployable headquarters for the NRF. It is already a joint command for European Union (EU) battle groups. The RFOC role within NATO still has to be agreed on; however, the fact that it is an available joint capable command asset means it is a likely future NRF headquarters.

---

the RFOC, with a staff of about 760, is being offered as a permanent joint deployable headquarters for the NRF

---

A legitimate question might be to ask: what are the roles of the NCS JFHQs in addition to oversight of NRF deployments? They have three broad operational tasks. First, they are the designated deploying commands for major operations, including Article 5 operations. Collective defense operations are regarded as remote possibilities for now, yet deterrence requires they be exercised regularly. Second, JFHQs must manage (from their home stations) the host of ongoing joint missions of any size that extend over long periods of time, such as ISAF, KFOR, and the planning and execution of exercises. Third, they must be prepared to deploy and take direct command of any smaller operation that grows into a major operation. JFHQs are also expected to develop regional and cultural expertise as part of operational preparedness.

It may not be wise to deploy a higher headquarters in the initial stages of even a large operation. In smaller operations, the NRF may suffice such that no higher
level command need deploy at all, similar to EU-controlled operations in Congo (2003) and Chad (2008). In a developing crisis, it will often be wise to wait until the situation under control before deploying a higher command echelon that must be supported and secured. The NRF can initially report to an NCS command outside the operational area. In situations where there is risk of a spreading crisis such that a higher headquarters might eventually be required, a JFHQ will be the right choice. Therefore, in high risk scenarios, having the NRF report to a JFHQ from the beginning ensures continuity of command and will be the wisest option.

**Recommendation.** NATO’s JFHQs are the most pragmatic link in the NCS for land-heavy NRF operations. For small NRF operations, however, there should not be an automatic or urgent requirement to deploy a JFHQ command element. The main purpose of the JFHQ will be to provide resources and deflect external distractions (that is, requirements of NATO, other agencies, or the host nation) from the deployed joint commander so he can focus entirely on operational success. The JFHQ should be prepared to deploy if the operation endures or grows in scale into a major operation—it is this possibility that make the JFHQ the right link from the NRF to the NCS. The JFHQ also has many other tasks that will become low priority or go unattended when it must deploy, hence it should not be overly anxious to do so.

If the JFHQ is too committed, the land component command should be prepared to assume the link to the NCS for land-heavy operations, and provide oversight of the NRF for ACO. The land component will have the closest ties to and greatest knowledge of all deployable NFS land commands. This will come from overseeing the continuing transformation of the land force commands of the NRF and their transition to joint capable commands. The land component command also has the responsibilities of land force operational planner and land force employment advisor for ACO. As all component commands, it is also responsible to ACO and Allied Command Transformation (ACT) for multinational training. This role includes primary responsibility for managing component interoperability and integration of capabilities into effective joint and combined forces. The component commands need not be deployable in order to be the reported-to command link of the NCS.

**Interoperability Initiatives to Complement the NRF.**
For the United States to sustain interoperability as a truly strategic operational resource, it has to do much more than revitalize the NRF. NATO should become the interoperability incubator for U.S. forces worldwide. Any nation has only one military, and it can follow but one set of operational procedures. NATO-agreed standards and doctrine continue to be tested and updated, promulgated beyond NATO, and invested in by more and more nations. The United States cannot afford a new set of standards and different doctrine to grow out of its outreach to partners in the Pacific or other regions. We should endeavor to spread the NATO way as far as possible beyond the present 69 NATO members and partners.

The procedures deeply ingrained from NATO institutions and longstanding agreements should be the basis for Pacific-based partner activity. However, NATO interoperability and standardization processes have to be agile, not dogmatic. NATO has to be open to global feedback, take on best of breed operating practices, and strive for rapid, vibrant refinement of what works best.

Where there is common equipment, common standards, procedures, and doctrine often follow. Common systems make interoperability easier. Much U.S. and European equipment is being acquired by partners. There are also NATO members looking to the seven Pacific NATO partners to make future capital investments in defense. The new U.S. Littoral Combat Ship and Joint High Speed Vessel are
being built by the U.S. subsidiary of Australian shipbuilder Austal. The United Kingdom has just ordered Royal Navy tankers from South Korean shipbuilder Daewoo Shipbuilding and Marine Engineering. These are but two examples.

Proposals

What follows is a list of specific proposals for U.S. policymakers to consider that will preserve and advance interoperability in tandem with the U.S. commitment to the NRF. The United States should propose to NATO as soon as possible a comprehensive strategy for sustaining future interoperability among members and partners in a period of reduced operations. A key element of the strategy should be a vigorous transatlantic interoperability track that signals enduring U.S. interest and leadership.

**Strengthen the Capacity of the USAREUR Digital Liaison Detachment.** The U.S. Army force structure includes Digital Liaison Detachments (DLDs) assigned at the theater army and component command levels to provide liaison teams capable of digital information-sharing with allied corps and divisions. USAREUR’s 209th DLD is a Reserve unit comprised of 30 personnel capable of liaising with allied forces at brigade through corps levels or with a multinational joint commander. It has been noted the value of the 209th in reaching out to Allies is limited but could be enhanced if funding were available for additional Active duty days for Reservists, or if the 209th were reorganized as an Active Army unit in theater.

**Convert USAREUR Single Function Military Police (MP) Brigade HQ with a Multifunctional Maneuver Enhancement Brigade (MEB) HQ.** USAREUR’s eventual MP Brigade HQ (with a single MP battalion) should be reorganized as a multifunctional MEB HQ that could fill more roles for NATO and USEUCOM. An MEB HQ can exercise mission command over a wider assortment of either in-theater or U.S.-based forces, including chemical, biological, radiological, and nuclear, MP, explosive ordnance disposal, civil affairs, and engineer units. MEBs can also employ a battalion-sized tactical combat force. An MEB is a better organizational fit to the NRF due to its multifunctional staff designed for planning and conducting stability operations, disaster relief, humanitarian assistance, and other wide area security functions. Having this asset in USAREUR would provide significantly greater flexibility than a single function MP Brigade HQ.

**Embed More U.S. Officers on Senior Allied Staffs.** Interoperability can be enhanced by developing a well-structured program of embedding U.S. military officers in defense ministries, national military headquarters, and other key military entities of select Allies and partners. Unlike liaison officers or tactical level exchange officers at corps and below, senior level “embeds” are posted inside ministries and top military staffs, side-by-side with host country colleagues, and often within the host’s chain of command. Embedding can bring substantial benefits to both the United States and its Allies and partners, including bringing planning and operational expertise to bear as host staffs determine national strategies, policies, and requirements; exchanging information at senior working levels; developing appreciation for different problem-solving cultures; and building networks for future collaboration. Embedding enhances intellectual interoperability upstream in national defense structures, which facilitates practical cooperation downstream, either within NATO or in any coalition operations.

---

For more information, visit www.ndu.edu/inss

**Increase U.S. and Allied Exchange Students at National and NATO military schools.** Austerity measures may eventually affect the investment in personnel attending NATO and allied military education programs. The opposite is what is required to offset the drawdown
in experience with international, interagency, and civil-military operations expected after 2014. The lessons from these operations are precisely the ones that a 21st-century force requires for success. NATO should track full attendance at its schools and invite nations to share data on the number of allied exchange students they support via bilateral arrangements. The goal should be to wring maximum advantage from all programs.

**Study the Creation of a USEUCOM Theater Security Cooperation Group.** In pursuit of USEUCOM’s major mission of security cooperation, a Joint Security Cooperation Group (JSCG) should be organized within the headquarters staff with contact elements at each component command. The main work of a JSCG would be to integrate partnership outreach programs across USEUCOM to realize optimum allied engagement from limited resources. An effective JSCG could be comprised of an estimated 100 or less midgrade officers and senior noncommissioned officers with recent operational experience. Principal activities would include advising allied exercise planning, doctrine development, adoption of NATO standards, and efficient use of resources. The goal of the JSCG should be to assist allied ministries of defense and the top echelons of national militaries in performance of multinational contingency operations.

**Align Each NFS Corps with a Core of Habitually Affiliated Forces.** Each corps in the NRF rotation should maintain a core of habitual unit affiliations that remain constant beyond a given rotation, creating a permanent core of members and some nonpermanent members and partners. These “in being” relationships will further interoperability at low cost. Liaison and training relationship should be established within each command to maintain connectivity among subunits and enablers on a continuing basis. When not training for or in an NRF rotation, regular information-sharing, periodic planning meetings, individual exchanges, and selected training are reasonable activities to nurture familiarity with multinational operations.

**Expand the NRF Commitment for Land Commands Up to 3 Years.** With 9 corps (10 with the U.S. corps proposed above) participating, each national corps across NATO would come into an NRF rotation only once every 9 or 10 years. Such a system has merit, but it means the NRF will be invisible most of the time to most NATO corps commands. The value of the NRF experience, and getting a greater return on investment in terms of commands able to meet unexpected crisis, suggest that the NRF window should be extended from 2 years (a year of preparation and a year on NRF standby) to 3 by adding a third, post-NRF year at a lower readiness level to act as an NRF “surge force.” The new flow scenario would roughly be as follows: The year prior to an NRF rotation, anticipated missions would be prioritized from Article 5 collective defense missions to various crisis response scenarios, and a base force package would be identified as the NRF Immediate Response Force. Other enabling forces would be identified from within the wider Response Force Pool for lower priority missions (for example, peace operations or humanitarian assistance/disaster relief). The year prior to the NRF rotation, the joint force trains for its primary mission, with less time devoted to other mission types, and to be capable of reconfiguring as required. At the end of the train-up year, the force is certified and begins its NRF 1-year rotation. All this is the current NRF procedure. However, at the end of the NRF year, the force would then return to lower readiness and remain available as a surge NRF force on lower readiness, able to respond to a second rapid response operation if needed. This surge
status could last less than a year, or until the follow-on corps, in train-up to assume the NRF mission, surpasses the surge corps’s readiness.

Reconnect USAREUR to NATO as Soon as Possible. USAREUR is unique among U.S. commands in theater in having fully decoupled from the NCS since the Cold War. Given the centrality of interoperability in U.S. doctrine, this is a major flaw within USEUCOM. USAREUR needs to become the driving force in standing up NATO’s new land component command in Izmir, Turkey. That is the only way transatlantic land interoperability will remain strong and deepen as the Alliance comes to depend on collective training rather than continuous operations for excellence in multinational missions. The land component command in Izmir should rapidly assume oversight of land force transformation across NATO—a current deficit in the NCS. It should have close ties to national land force chiefs and expert knowledge of the strengths and weaknesses of all NFS deployable commands. This will come from overseeing the transformation of land forces in general and the land component commands of the NRF in particular, especially their transition to joint capable corps commands. The land component command must also become the land force planner, concept developer, and multinational land force trainer for ACO. It will have primary responsibility for integrating the land components of every Ally and partner into joint and combined operations, similar to its maritime and air counterparts. Because of the many responsibilities of the land command at Izmir, it should have a U.S. commander and be tied to USEUCOM as other NATO component commands are, dual-hatted as either the USAREUR commander or his deputy.

Strengthen the Role of ACT as the Primary Engine of Interoperability. Although ACT is well established on interoperability, it must be underscored that ACT is the agent responsible for all Alliance interoperability, including across the Atlantic. A U.S. initiative to give interoperability strategic stature as a military asset and force multiplier has to define how it sees ACT working in harmony with all other proposals. ACT should have a close and special relationship to the Pentagon. In the future, interoperability must be built on vigorous training rather than operational experience—a clear shift in emphasis from ACO toward ACT, though both are central to training as well as operations. ACT must also get the maximum effect from every resource invested in interoperability. This is conceptualized in the complement to Smart Defense that the Secretary General has christened Connected Forces Initiative (CFI). CFI may well prove to be the more effective and successful of the two. Yet ACT is the engine behind both and will need close cooperation with and from USEUCOM in the absence of the former U.S. Joint Forces Command if NATO is to succeed in replacing operational experience with training. ACT must be manned and resourced appropriately, including with top U.S. personnel. One task ACT should have in its sights is how to spread more of NATO TTPs, doctrine, concepts, and standards to more partners. It should actively track the degree to which members and partners invest in NATO compliant systems and methods.

The NATO Response Force is the essential core of future interoperability. However, it is just the core. A far broader vision and implementing strategy have to be internalized by Alliance members, especially the United States. Many related initiatives can be instituted in the near term at low cost. Other steps will take a while to be realized, but Allies should see them through. Our ability to operate together will be the foundation on which transatlanticism will flourish in the 21st century.

Notes
1 The NATO Operation Maritime Guard, conducted under United Nations Resolution 787 authorizing the use of force to stop arms shipments to Yugoslavia, commenced in the Adriatic in October.
1992. The Alliance has been engaged in deadly force crisis response land, sea, and air operations ever since.

2 See Joint Publication 3.0, Operations (Washington, DC: The Joint Staff, August 11, 2011). This publication is regarded as the capstone manual from which an extensive host of doctrine is further elaborated.

3 The Marine Corps Pre-positioning Program—Norway, in existence since the early 1980s, is actively used. In July 2012, it completed modification from a Marine Expeditionary Brigade equipment set to a smaller and more flexible Special Purpose Marine Air Ground Task Force available globally and configured for either operational contingencies or security cooperation missions.

4 Prepositioned Overseas Material Configured in Unit Sets. Several heavy divisions’ worth of this equipment, held in climatically controlled warehouses across Europe, were maintained in ready-to-use status by local civilian technicians. U.S.-based units could leave their equipment behind and arrive much more quickly in theater, ready to fight.

5 Cadre is a brigade or division organization manned only by its key personnel and lacking any full subordinate units or major equipment. The unit is able to participate in limited planning and training and can be quickly filled with a full complement of personnel and equipment to be ready for training and operations. Because all key personnel are well known to each other, the unit avoids many of the startup problems typical of new organizations.


8 It is reasonable that NATO review with nations whether it needs 9 or 10 national and multinational corps. One impact of economic austerity is that many of these headquarters are undermanned at present. In addition, under the new NATO Command Structure, each of these land commands is to invest in becoming a deployable joint force command for smaller NATO operations. What the requirement will be to meet Allied Command Operations (ACO) certification as a “joint command” is not yet identified. However, it will involve some investment in additional personnel, communications, and other “kit.” It will also require exercises and ACO certification.

9 This readiness regimen is analogous to U.S. aircraft carrier deployment schemes for the Atlantic and Pacific fleets.

10 A sound argument can be made that the U.S. Army Europe (USAREUR) commander should be located in Izmir rather than Wiesbaden. The principal activity of USAREUR is now building partnership capacity, that is, the preparation of multinational land forces to operate together. There will be few U.S. combat forces in theater to warrant an extensive operational focus. Hence, the main land force mission focus for the U.S. Army is team-building with potential partners in Izmir. In Wiesbaden, a deputy commander could be located along with much of the USAREUR staff to manage theater Army forces and missions, including planning and conducting limited U.S.-only operations (for example, bilateral assistance and noncombatant evacuation operations). A USAREUR commander, dual-hatted as commander NATO Land Command Izmir and located there, provides command arrangements between NATO and U.S. European Command (USEUCOM) that are compatible and synchronous. However, having a dual-hatted commander is not enough; the two headquarters staffs must also coordinate closely together. That is necessary to correct the full disconnect between USAREUR and NATO’s land commands today, an unsatisfactory situation that will persist if the U.S. flag officer at Izmir is not aligned with USEUCOM. Dual-hatting the USAREUR commander is also preferable to the difficulties that might emerge if he were to report to the USEUCOM commander while a USAREUR deputy reported to SACEUR as the NATO land commander at Izmir. The United States should seriously reconsider the rank of its USEUCOM component commands in light of their mission of overseeing the successful transformation of so many allied and partner militaries into capable partners to U.S. forces. An additional star in this case is low-cost high return. Notably, Senator Daniel Inouye (D-HI) has declared the position of commander, U.S. Army Pacific, should be redesignated a four-star position, justified by the vast number of foreign militaries with which it must engage.

11 NATO Secretary General Anders Fogh Rasmussen, remarks at the February 2012 Munich Security Conference.
The Chinese Air Force: Evolving Concepts, Roles, and Capabilities
Edited by Richard P. Hallion, Roger Cliff, and Phillip C. Saunders

The People’s Liberation Army Air Force has undergone a rapid transformation since the 1990s into a formidable, modern air force that could present major challenges to Taiwanese and U.S. forces in a potential conflict. To examine the present state and future prospects of China’s air force, a distinguished group of scholars and experts on Chinese airpower and military affairs gathered in Taipei, Taiwan, in October 2010. This volume is a compilation of the edited papers presented at the conference, rooted in Chinese sources and reflecting comments and additions stimulated by the dialogue and discussions among the participants. Contributing authors include Kenneth W. Allen, Roger Cliff, David Frelinger, His-hua Cheng, Richard P. Hallion, Jessica Hart, Kevin Lanzit, Forrest E. Morgan, Kevin Pollpeter, Shen Pin-Luen, Phillip C. Saunders, David Shlapak, Mark A. Stokes, Murray Scot Tanner, Joshua K. Wiseman, Xiaoming Zhang, and You Ji.

The Paradox of Power: Sino-American Strategic Restraint in an Age of Vulnerability
By David C. Gompert and Phillip C. Saunders

The United States and China each have or will soon have the ability to inflict grave harm upon the other by nuclear attack, attacks on satellites, or attacks on computer networks. Paradoxically, despite each country’s power, its strategic vulnerability is growing. A clearer understanding of the characteristics of these three domains—nuclear, space, and cyber—can provide the underpinnings of strategic stability between the United States and China in the decades ahead. David Gompert and Phillip Saunders assess the prospect of U.S.-Chinese competition in these domains and recommend that the United States should propose a comprehensive approach based on mutual restraint whereby it and China can mitigate their growing strategic vulnerabilities. This mutual restraint regime may not take the form of binding treaties, but patterns of understanding and restraint may be enough to maintain stability.
Trust, Engagement, and Technology Transfer: Underpinnings for U.S.-Brazil Defense Cooperation
E. Richard Downes
(Center for Strategic Research, Strategic Forum 279, August 2012)

Preparing the Pipeline: The U.S. Cyber Workforce for the Future
David J. Kay, Terry J. Pudas, and Brett Young
(Center for the Study of Technology and National Security Policy, Defense Horizons 72, August 2012)

Widening Gaps in U.S. and European Defense Capabilities and Cooperation
Charles Barry and Hans Binnendijk
(Center for Transatlantic Security Studies, Transatlantic Current 5, July 2012)

Protecting NATO’s Advantage in Space
Gregory L. Schulte
(Center for Transatlantic Security Studies, Transatlantic Current 5, May 2012)

The United States, Russia, Europe, and Security: How to Address the Unfinished Business of the Post–Cold War Era
Isabelle François
(Center for Transatlantic Security Studies, Transatlantic Perspective 2, April 2012)

Cross-currents in French Defense and U.S. Interests
Leo G. Michel
(Center for Strategic Research, Strategic Perspective 10, April 2012)

Grand Strategy and International Law
Nicholas Rostow
(Center for Strategic Research, Strategic Forum 277, April 2012)

NATO and the ICC: Time for Cooperation?
Ulf Haeussler
(Center for Transatlantic Security Studies, Transatlantic Current 4, March 2012)

Russia and the Iranian Nuclear Program: Replay or Breakthrough?
John W. Parker
(Center for Strategic Research, Strategic Perspective 9, March 2012)

Post-Asad Syria: Opportunity or Quagmire?
Patrick Clawson
(Center for Strategic Research, Strategic Forum 276, February 2012)