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Featured Essays

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"That All May Labor As One"

Fall 2015

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Cover image: Students of JCWS Seminar 13, Class 15-03 apply design concepts during a seminar exercise at NSA Norfolk, VA on Oct 20, 2015. Photo by Daniel H. McCauley.

In this issue of Campaigning:

Editor's Corner

Educating the Joint force is the sole mission of the Joint Forces Staff College. A key component of the College's educational approach is to develop in our students the ability to understand the concepts, principles, structures, and processes that Joint professionals apply or operate within now and in the future. On the surface, developing an understanding of Joint concepts appears a relatively simple educational task: read, discuss, and apply. In reality, developing an understanding of anything is far more difficult and time-consuming than many practitioners imagine. To develop an understanding in the manner in which General Martin Dempsey has described in his desired Leader Attributes for Joint Force 2020, the student must examine the past, leveraging hindsight to comprehend how today's environment developed and why; it requires the student to analyze the current environment, leveraging insight to gain a deeper appreciation for the elements, purpose(s), and interrelationships of the present system; and, finally, it requires the student to analyze trends, leveraging foresight to develop the ability to recognize the possibilities, plausibilities, and probabilities of a dynamic future. In short, to operate successfully in today's global security environment students need not only study the lessons learned, but the "lessons to be learned" as well.

The Fall 2015 edition of *Campaigning* addresses these three components of understanding: hindsight, insight, and foresight. Assistant Professor Mary Bell presents the first of four essays that leverage

hindsight. In her essay, "Earthquake in Haiti: Application of GIS Mapping Technology to Coordinate Relief Efforts," Professor Bell analyzes the lessons learned from the 2010 Haiti earthquake and advocates for the use of advanced mapping software in future humanitarian relief efforts. Mr. Mike Bennett provides a historical essay titled, "The Accidental Counter Guerrilla," that draws lessons from successful counterinsurgencies in El Salvador, Colombia, and the Philippines from which he advocates for a template to apply to future counterinsurgency operations. In his essay, "Rain of Ruin: Operational Design and the Pacific War, 1944-1945," Colonel Gerard Tertychny applies the current Joint Publication 5-0, Joint Operation Planning, operational design concept to the U.S. Pacific Theater of War, 1944-1945, providing insights into the evolving nature of planning processes and concepts. Lieutenant Colonel Phillip Borders, Major Kelly Montier, and Lieutenant Colonel Michael Nakonieczny collaborate on an essay titled, "The Falklands Campaign: A Failure in Modern Joint Common Operating Precepts." The authors use the Falkland Islands campaign to study the application of Joint common operating principles as described in the current Joint Publication 3-0, Joint Operations.

Two of this edition's essays leverage the second component of understanding, insight, by focusing on contemporary issues. Major Amanda Current and Lieutenant Colonel Bryan Redash examine the Shanghai

Cooperation Agreement and the proposed cyber Code of Conduct. They argue that as the leader of the Western consensus, the U.S. should refrain from endorsing it. Major Johannes Castro, Major Adam Knox, and Major Scott Worth examine another contemporary issue, mission command, discussing the implications of the concept for senior military leaders.

Finally, this edition of *Campaigning* introduces a new feature, "The Foresight Factor," that focuses on the third component of understanding: foresight. The Foresight Factor is dedicated to increasing the Joint community's awareness of strategic foresight and some of the tools available to the Joint practitioner. These essays are the products of one of the Joint and Combined Warfighting Schools electives that focuses primarily on the application of foresight tools using a specific student-selected issue for context. Although the emphasis is on the use of the tools, the analysis and assessments are noteworthy. Colonel Rob Pope, Lieutenant Colonel Jeff Fair, and Major Dale Fenton provide the initial essay, "Using Strategic Foresight and Systems Thinking Analyses to Craft a U.S. Strategy for the African Sahel and Maghreb," as they apply selected foresight tools in the analysis and assessment of U.S. policy, and develop a strategy for the African Sahel and Maghreb.

We hope you enjoy this edition of *Campaigning*. You can let me know what you think by emailing me at mccauleyd@ndu.edu.

Daniel H. McCauley
Editor

Earthquake in Haiti: Application of GIS Mapping Technology to Coordinate Relief Efforts

By Assistant Professor Mary S. Bell

Every American can tell you where they were when terrorists flew two airplanes into the World Trade Center in New York City on September 11, 2001. January 12, 2010 holds the same significance for Haitians and is a day that will not be forgotten by the Haitian people. That day a magnitude 7.0 earthquake brought the small island nation to its knees. The epicenter of the earthquake was approximately 10-15 miles from Port au Prince, the nation's capital city, and photos and video of the immediate aftermath made the world take notice. Most of the devastation was concentrated in Port au Prince, with an estimated total population of 2.2 million people. Virtually everyone in the capital city suffered directly from the earthquake with more than an estimated 300,000 people killed and 1.5 million people left homeless.[1] One young teenager, Darlene Etienne, "was entombed in crumbled concrete and twisted steel. All around her, the sprawling city of Port-au-Prince was in ruins."[2] However, some, like Etienne, were rescued from the rubble. Her family had given up hope until after a staggering 15 days buried in the rubble, someone finally heard her cries for help. She recalled being coherent and awake hearing people going by, but nobody heard her cries for two weeks because of the "cacophony of rumbling equipment and other noises in those desperate days."[3] Etienne's unique story of hope and survival are uncommon although relief efforts from around the world were enormous. The improvements and creative use of technologies and resources are critical for rescue workers whether they are trying to locate missing people or moving necessary supplies from a port of embarkation to a distribution center. The application of development and modernization theory is especially useful in helping understand the unique challenges underdeveloped nations such as Haiti face. Because the Haitian experience and view of the world is so different than most of the people helping them, these theories help those organizing relief efforts in the future. *In the midst of the crisis in Haiti, visionaries and volunteers found new applications for mapping software that were critical to providing timely information to relief workers.* It's possible to understand a variety of challenges relief workers faced in Haiti after the earthquake through a brief description of Haiti's history, application of development and modernization theory, and a broad overview of the application of some mapping technology used during earthquake recovery.

The Violent and Difficult Haitian Experience

Before the disastrous earthquake hit in 2010, more than 70% of Haitians were living on less than $2 a day and 86% of the people in Port au Prince were living in slums which mostly consisted of poorly constructed concrete buildings. Only half of the 2.2 million people in Port au Prince had access to latrines and only one-third had access to running water.[4] The road network was poor, at best. The ports to the west of the capital city were the main source of transportation of goods to and from the nation and they were virtually destroyed by the earthquake. Haiti is roughly the size of Massachusetts, yet only a small percentage of it has serviceable infrastructure. Most people travel by foot or bicycle making it difficult to move goods to and from the rural areas.

In addition to poor infrastructure, over half of Haitians are illiterate.[5] Print media is minimally produced and consumed because the people can't read. Television is minimally available due to poor infrastructure with sporadic access to electricity. The only form of mass media with a high penetration rate is radio. The people are able to power radios with electricity, batteries and solar power. Approximately 96% of Haitians listen to the radio every day making it the most common form of media. Nearly 42% of people in Haiti have mobile phones and most of those are used for multiple purposes including tuning in to radio stations. Illiteracy contributes to the low use of mobile phone SMS technology and only 8.4% use the internet.[6]

All these conditions explain why recovery from the devastating 7.0 magnitude earthquake has been so difficult. Most of the land lacks the soil it needs to grow crops and trees, governmental leaders have historically terrorized their people, the infrastructure is very poor, and the people are illiterate. Further hindering recovery was a lack of a centralized government to lead the effort. The earthquake destroyed the Presidential Palace and killed an estimated 16,000 civil service employees. A report issued by an internationally recognized non-governmental organization (NGO), Oxfam International "found that dysfunctional governance, legal hurdles and a lack of long-term strategic planning on the part of Haitian officials has hobbled the recovery effort and delayed basic construction projects."[7]

Individuals, foreign governments, and charitable organizations either went to Haiti or committed valuable resources to Haiti to help with recovery efforts. Dissecting the Haitian experience and correctly applying developmental and modernization theory will help explain why relief workers were disappointed with Haitian recovery following the earthquake.

Applying Development and Modernization Theory

Haiti's only true form of mass communication is via radio programs of just about every variety including sports, politics, religion, music, and news. The current Haitian President, Michel Martelly, was widely popular as a radio music star in a local music style called *Kompa*. He had no political experience when he ran for president in 2010, but his millions of dedicated followers voted him into office.[8] The power of media is strong in Haiti, allowing Haitians to express themselves through low-tech and low-cost means. Theorists Elihu Katz and George Wedell explain that radio broadcasts are vitally important in giving Haitians a sense of national identity and providing a forum for a radio music star to be elected as president. Katz and Wedell wrote, "The most important use of radio in the promotion of national integration is its encouragement of the national language."[9] They go on the stress the importance of radio in emerging markets is due to its very low-cost access. Katz and Wedell's theory on the need for the proliferation of radio in a developing nation is applicable to Haiti, but it's harder to evaluate how Haitians are able to utilize other forms of technology.

Due to high illiteracy rates and minimal use of technology, visualizing spatial data can be especially difficult in nations such as Haiti. Yet, in the developed world, the creation of online mapping applications has become a major global industry. These applications are commonly called Geospatial Information Systems (GIS) and allow users to quickly import a variety of data formats such as geospatial data into online maps and share this information to assess real-world problems. Use of GIS technologies was important in

the Haiti earthquake recovery efforts allowing relief workers to find and rescue injured people, determine building damage and track large population movements. There were many new applications of GIS during the disaster that are being further developed to help during relief efforts in other parts of the world.

Understanding that different cultures have a different view of time and space is one of the most difficult sociological concepts for humans to absorb. How most of us see the world is related to how we view power in the world. The earliest maps displayed power by placing continents like Europe at the center of the map and making the depiction larger than other landmasses. Use of GIS changes the way the world is portrayed discarding centuries of this subtle form of power. GIS allows individuals to manipulate data and rotate the world according to their perception. However, theorist David Bodenhamer recognizes the biggest problem is that "Spatial technologies in general, and especially GIS, are expensive, complex, and cumbersome, despite recent advances that have driven down costs and simplified the user experience."[10] GIS inherently allows each user to display and manipulate data using their personal view of the world, but only those with access to the technology have the ability to reimagine spatial relationships.

Intersecting spatial relationships of different cultures is more common as the world globalizes. Radhika Ganjalla theorizes that the globalization "discourse represents technologies as enabling the bringing together of the 'good people' in the developing countries to help the poor and disadvantaged of the third world. This discourse does not tell the other side of globalization."[11] Ganjalla emphasizes that the subaltern - people who are socially, politically and geographically outside of the power structure - are often given a voice through fund raising efforts, but the voice they are given is one that is constructed to emphasize their need. This was especially evident in the fund raising models used by organizations in response to the Haiti disaster. It was not a portrayal of the subaltern as they feel about themselves and how they see their place in the world, but a constructed view by outsiders to enhance the portrayal of a large community of subaltern Haitians as in dire need of help.

Theorist Michel de Certeau wrote how the simplest things from giving to directions to reading a tour map are indicative of how one sees the world.[12] Some people are used to orienting themselves using cardinal directions and others orient themselves using landmarks. There are people who consider 10 miles a far distance and others who would consider anything within 100 miles as the local area. It's important to understand how different populations have a different view of the world and applying GIS to activities such as tracking large population movements doesn't explain *why* the populations moved from one place to another nor does it provide insight into when they may move again. GIS may be used to determine the level of building damage resulting from an earthquake, but it doesn't help move people out of or away from the building. The use of GIS provides information, but the analysis of how to use and apply that information is the next important step in determining the effectiveness of GIS.

Developmental theorist Fabienne Darling-Wolf emphasized several important concepts applicable to those trying to understand and help the Haitians. First she explained that when trying to frame how someone else sees the world, you must have a good understanding of your own biases. She also emphasized the importance of a deep understanding of other cultures that can only be obtained by first-hand experience.[13]

For relief workers to provide immediate disaster relief they need a basic understanding of what they will be facing. To have more impact and a longer lasting effect, it is critical that those people wanting to provide aid understand the history and culture of Haiti. People who understand the Haitian culture are more equipped to use technology to predict population movements even during a crisis. Darling-Wolf's theory must be constantly revisited to achieve the best results. The more relief workers and charitable organizations understand about the culture, religion and language of the people they are trying to help, the more successful they will be.

How Mapping Technology was Used to Support the Relief Effort

When developers and users of GIS technologies work to see the world through different perspectives of space and time, they are able to create new angles of viewing and incorporating information. Different types of GIS technologies and mapping data illustrates this point. Two types of free online, GIS software that were used to help relief efforts in Haiti were *Ushahidi* and *Google Earth*.

Ushahidi, which means *testimony* or *witness* in Swahili, was initially developed to map reports of violence and peace efforts resulting from protests over the Kenyan elections in 2008. A PhD student at Tufts University, Patrick Meier, had friends conducting research in Haiti when the earthquake struck. In an attempt to track his friends, he launched a live crisis map of Haiti using *Ushahidi*. Meier heard from his friends in Haiti via SMS by midnight and learned they had survived the tragedy, but he continued mapping the emergency tweets and SMSs being transmitted by other survivors. He enlisted the help of his fellow students and they began to help map the data as it came in. Soon it was too much for the

small group. They reached out to The Fletcher School of Tufts and "By the end of the week, [they] had trained over 100 graduate and undergraduate students on how to monitor social and mainstream media for relevant, mappable content. Due to poor imagery of Port au Prince, hundreds of volunteers from around the world lent their expertise to create the most detailed roadmap of Haiti ever produced."[14] Meier called their volunteer relief efforts the *Ushahidi Haiti Project* (UHP).

Relief organizations heard about UHP and sponsored an international SMS number used by the Haitian Diaspora and other people with contacts in Haiti. Digicel, the largest mobile phone company in Haiti offered UHP a free SMS number and helped promote the use of it for people within Haiti to send updates on their location and level of need. The word was spread using local radio stations. Another network of language experts translated the SMS messages and Tweets posted in the native Haitian language of Creole to English, enabling the volunteers at UHP to map the actionable data. Operators from the US Coast Guard (USCG) and Department of Defense (DoD) heard about UHP and contacted The Fletcher School. UHP volunteers quickly responded and linked the USCG and DoD into their network. Users from both the USCG and the DoD wrote testimonials of the importance of the information mapped on *Ushahidi* and how they were able to use it to find and attend to critically-injured Haitians.[15] Figures 2 and 3 depict the UHP crisis map. UHP was hugely successfully in providing disaster mapping that was used by NGOs, intergovernmental organizations (IGOs) and US governmental organizations to deliver relief aid and to launch search and rescue operations.

Meier created a network providing information to those on the ground who could act upon it. This system saved lives

and demonstrated a new way to apply GIS in a disaster. Application of GIS this way has led to the use of the *Ushahidi* in other parts of the world during disasters and even "led to the launch of the Standby Volunteer Task Force (SBTF), a global network of 850+ volunteers in more than 80 countries around the world who use their live mapping skills to support humanitarian, human rights, development and media organizations."[16]
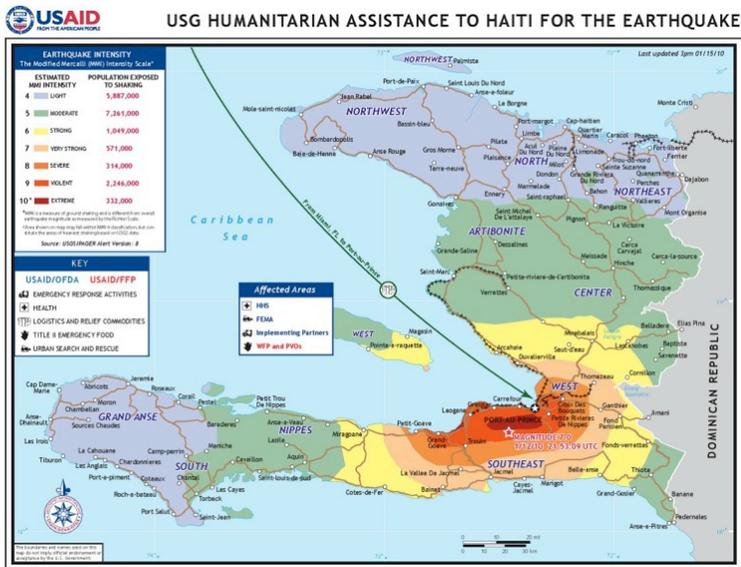
Figure 1 - Earthquake Intensity[17]

Figure 2 - Close up of the Ushahidi Haiti map after 24 hours. Each number represents the individual number of reports within the area. Users could zoon in further to see the individual reports. Credit: UHP.[18]

Ushahidi Haiti Project Map
The Haiti Crisis Map at the end of operations. Credit: Ushahidi Haiti Project (UHP).
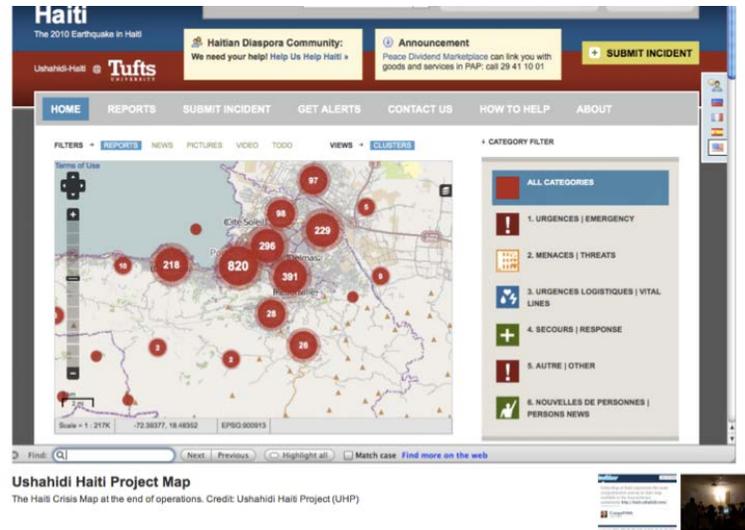
Figure 3 - Ushahidi Haiti Project Map at the End of Operations[19]

There were other applications of GIS supporting Haiti earthquake relief efforts. Google Inc. used GIS to help in the relief effort, but their approach was different from Meier's use of UHP. Immediately after the earthquake, Google Inc. obtained aerial imagery produced by the Open Skies mission and other aerial imagery platforms. The Open Skies aerial imagery mission is one example of missions flown by the US Government as part of the relief efforts. The 27-person mission crew flew on the Open Skies aircraft (OC-135) producing thousands of unclassified images of Haiti that were digitized and offered at no-cost to organizations that were able to use imagery for mapping and analysis of the devastation.[20] Figures 4-8 are from the Open Skies mission flown on January 16, 2010.

Figure 4 - Projected Flight Path of the Open Skies Mission[21]

Figure 6 - Open Skies Team during the imagery collection mission over Haiti - Jan 16, 2010[23]

Figure 5 - Flight Path of the Open Skies Mission While Collecting Imagery Near the Epicenter of the Earthquake[22]

Figure 7 – Open Skies Imagery: Port au Prince Port Image Depicts Both Damage and Masses of People Seeking Aide[24]

Figure 8 – Open Skies Imagery: Port au Prince Airport at Maximum Density of Airplanes Bringing Relief Supplies and Relief Workers[25]

The new images were added to the free *Google Earth* online mapping software. One use of these images was in conducting building damage assessments. Experts analyzed the before and after photos labeling buildings with a damage code that was compared to ground survey data for accuracy. Accuracy of the analysts was assessed at 73%, which was as accurate as any other method of building damage evaluation and didn't require travel to Haiti.

Google Earth was simultaneously used to map geo-located crisis reports obtained through SMS. This data provided timely crowd-sourced damage patterns identifying the buildings with the most damage.[26] It is estimated that 30,000 commercial and 250,000 private residences were either severely damaged or completely collapsed from the earthquake resulting in an estimated $14 billion total damage.[27] These building damage assessments were important in establishing the priority of relief efforts. Google Inc. proved that by utilizing GIS, the assessment process could be greatly streamlined in future disasters.

Another issue relief workers faced during relief efforts was large population movements out of Port au Prince following the earthquake. These movements made it difficult to deliver goods and services to people who needed them. Scientists were able to track these movements using mobile phone data. When the earthquake occurred, Haiti's largest mobile phone company, *Digicel*, had 2.2 million users and approximately 90% coverage in the affected areas. *Digicel* provided the scientists anonymous data allowing them to track movements of users using geospatial-tracking systems. Since "mobile phone networks are relatively resilient to external shocks…"[28] scientists were able to use this method to track population movement, which peaked 19 days after the earthquake on January 31st. An estimated 630,000 people who were present in Port au Prince on the day of the earthquake had not returned on the 19th day. This coincided with approximately 120,000 people moving into the city who were not there the day of the earthquake leaving a total outflow of 510,000 people on that day.[29]
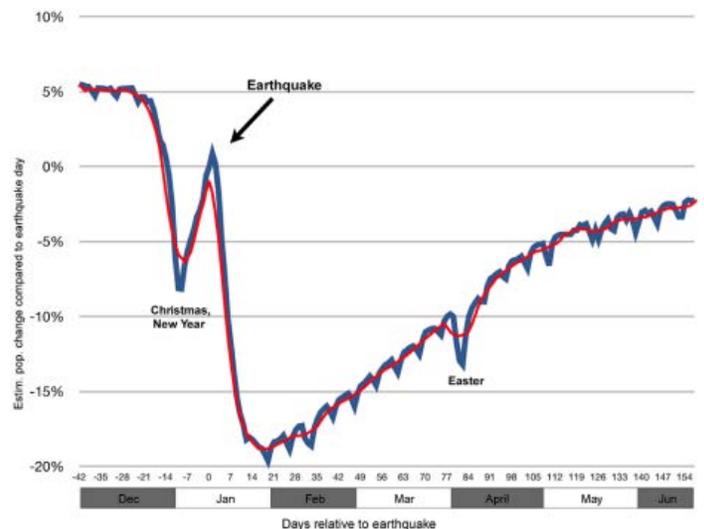
Figure 9 - Estimated Net Changes of the Port au Prince Population Following the Earthquake[30]

Large population movements were tracked for some time following the earthquake.

This data was compared to the data produced United Nations Population Fund (UNFPA), gathered mostly through household interviews, and the Haitian National Civil Protection Agency (NPCA), primarily gathered by counting ship and bus movements. The estimates were similar and the technique using geospatial mobile phone data was significantly less time consuming and less expensive. The scientists were able to provide this timely data to relief organizations. This type of population tracking was highly effective and could be used in many parts of the world vulnerable to large population migrations.[31]

Conclusion

When providing relief efforts to developing nations such as Haiti, organizations must try to reach a basic understanding of the environment in which they are operating. Development and modernization theories help inform the understanding of the environment by explaining why Haitians see the world differently. By capitalizing on an

understanding of these features, relief efforts using those technologies proved to be the most successful. The use of GIS technologies such as *Ushahidi* and *Google Earth* to help create maps showing where relief efforts should take priority and mobile phone tracking data to watch migration patterns were vital in providing the right type of aid, at the right time and at the right place. It took creative thinking and creative application of advanced technologies applied to a nation with very little social, economic and technological advancement. These successes are good examples of the possibility of future applications of GIS in both developing and developed nations.

Author Biography

Mary S. Bell is currently serving as an Assistant Professor of the National Defense University's Joint Forces Staff College, Joint and Combined Warfighting School in Norfolk, Virginia. She has over 20 years of service in the US Army with experience in Aviation and Intelligence.

[1] CNN World, "Haiti Earthquake Fast Facts," February 28, 2014, http://www.cnn.com/2013/12/12/world/haiti-earthquake-fast-facts/ (accessed Oct 22, 2014).
[2] Nicholas Garcia, "Darlene Etienne, Haiti Earthquake Survivor 'Miracle,' Makes Full Recovery," HuffingtonPost.com, Jan 11, 2011, http://www.huffingtonpost.com/2011/01/11/darlene-etienne-haiti-earthquake-survivor_n_807403.html (accessed Dec 12, 2014).
[3] Ibid.
[4] Disasters Emergency Committee, "Haiti Earthquake Facts and Figures," http://www.dec.org.uk/haiti-earthquake-facts-and-figures (accessed Oct 22, 2014).
[5] Central Intelligence Agency, "Haiti."
[6] InfoasAid, "Haiti: Media and Telecoms Landscape Guide October 2012," http://infoasaid.org/sites/infoasaid.org/files/haiti_media_guide_final_211012_0.pdf (accessed Aug 12, 2013).
[7] Sal Gentile, "Report criticizes Haiti recovery commission led by Bill Clinton," *PBS.org*, January

7, 2011, http://www.pbs.org/wnet/need-to-know/the-daily-need/report-criticizes-haiti-recovery-commission-led-by-bill-clinton/6187/ (accessed Oct 22, 2014).
[8] Paolo Woods, "In Haiti, 'video has not killed the radio star'," *NBC News*, Feb 2012, http://photoblog.nbcnews.com/_news/2012/02/01/10254366-in-haiti-video-has-not-killed-the-radio-star?lite (accessed Aug 20, 2013).
[9] Elihu Katz and George Wedell, *Broadcasting in the Third World: Promise and Performance* (Cambridge, Mass: University Press, 1977) 171.
[10] David J. Bodenhamer, John Corrigan and Trevor M. Harris, eds, *The Spatial Humanities: GIS and the Future of Humanities Scholarship* (Bloomington, Indiana University Press, 2010) 16.
[11] Radhika Gajjala, ed. *Cyberculture and the Subaltern: Weavings of the Virtual and Real* (Boulder: Lexington Books, 2013) 73.
[12] Michel de Certeau, *The Practice of Everyday Life* (Berkeley: University of California Press, 1984) 91-108.

[13] Fabienne Darling-Wolf, "Negotiation and Position: On the Need and Difficulty of Developing 'Thicker Descriptions'," *Global Media Studies: Ethnographic Perspectives*. Ed. Patrick Murphy and Marwan Kraidy, 2003, 109-124.

[14] Patrick Meier, "How Crisis Mapping Saved Lives in Haiti," *National Geographic*, Explorers Journal, July 2, 2012, http://newswatch.nationalgeographic.com/2012/07/02/crisis-mapping-haiti/ (accessed Oct 23, 2014).

[15] Ibid.

[16] Ibid.

[17] USAID, "Earthquake Overview," http://www.usaid.gov/haiti/earthquake-overview (accessed Oct 22, 2014).

[18] Patrick Meier, "How Crisis Mapping Saved Lives in Haiti." Screen captured by Patrick Meier (Released on September 14, 2015).

[19] Ibid.

[20] Rebecca A. Garcia, "Air Force asset used to assess damage, needs," *459th Air Refueling Wing, US Air Force*, January 20, 2010, http://www.459arw.afrc.af.mil/news/story.asp?id=123186328 (accessed Oct 22, 2014).

[21] Jamie McIntyre, "Haiti Overflight," January 16, 2010, http://www.youtube.com/watch?v=qrNiQf9FtKg (accessed Aug 12, 2013).

Photo by Jamie McIntyre on Jan 12, 2010. (Released on September 12, 2015).

[22] Ibid.

[23] Ibid.

[24] Photo taken by OC-135 camera equipment on January 12, 2010. LTC Mary Bell as Mission Commander. (Released).

[25] Ibid.

[26] C. Corbane, G. Lemoine, and M. Kauffman, "Relationship between the spatial distribution of SMS messages reporting needs and building damage in 2010 Haiti disaster," *Natural Hazards & Earth System Sciences*, 2012 Vol 12 Issue 2, 255-265.

[27] Mary Beth Sheridan, "Study: Haiti's earthquake damage estimated up to $14 billion," *The Washington Post*, February 17, 2010, http://articles.washingtonpost.com/2010-02-17/news/36856782_1_haiti-quake-haiti-funds-quake-damage (accessed Aug 8, 2013).

[28] Linus Bengtsson, Xin Lu, Anna Thorson, Richard Garfield and Johan von Screeb, "Improved Response to Disasters and Outbreaks by Tracking Population Movements with Mobile Phone Network Data: A Post-Earthquake Geospatial Study in Haiti," *PLoS Medicine*, Aug 2011, Vol 8 Issue 8, 1-9.

[29] Ibid.

[30] Ibid.

[31] Ibid.

The Accidental Counter Guerrilla (The Other Side of the COIN: Counterinsurgency)

By Mr Mike Bennett

Dave Kilcullen, in his book *The Accidental Guerrilla*, points out that not all guerillas arrive at the occupation on purpose. Some guerilla's do so for a particular cause, some for a number of different reasons, and some others entirely by accident. In some historical cases, the United States successfully responded to guerillas and insurgencies, but in many cases it, too, responded by accident. An accidental guerilla would capitalize on successes, accidental or otherwise, and so should the United States.

As of late, the United States has not fared well fighting guerillas and insurgents. Current operational successes and failures are largely the result of failure to follow strategic guidance documents that foreswear "large-scale, prolonged stability operations." [2] United States Special Operations Command (USSOCOM), as part of their strategy for an international network approach, now focuses on "small scale stability operations," and extolls the virtues of indirect approach operations using small footprint, persistent engagement.[3] Researchers often cite El Salvador, Colombia, and the Philippines as examples of successful operations of that type, but a historical review focused on intent reveals that a small footprint, persistent engagement approach was neither intended nor planned. The US got to the right approach but by accident.

El Salvador (1981-1992)

United States Southern Command (USSOUTHCOM) and the US Embassy followed a plan consistent with US doctrine for COIN in El Salvador when it employed an internal defense and development plan (IDAD) supported by US foreign internal defense (FID). It also employed persistent engagement of ten-plus years with a small footprint of fifty-five trainers—a limit set by Congress. The 55-man limit restrained the U.S trainers from making it a U.S. lead fight. The El Salvadoran Armed Forces (ESAF) had to do the fighting; trainers were not allowed to go on combat operations.

The limitation of 55 U.S trainers was derived from testimony before Congress. This was the number of U.S. military that had been in El Salvador prior to the cancelation of the security assistance program. The program was canceled by President Jimmy Carter due to the discovery of massive human rights violations. According to former US Military Group Commander, BG Joe Stringham, the original strategy was to begin with the number of trainers that were in country when the program was canceled. The U.S Embassy and USMILGP never intended that number as a ceiling.[6] However, Congress did not relent. As one of the 55 trainers in country in 1983, I thought, and the consensus amongst the trainers seemed to agree, that the parent organization, the 3rd battalion 7th Special Forces Group in Panama, should have been deployed.

El Salvador ended its conflict when the insurgent organization, Farabundi Marti Liberation National (FMLN) signed the peace accords and agreed to become a part of the political process. This assessment is in accord with the RAND Study by Seth Jones and Martin Libicki that found most insurgencies end by becoming a part of the political process.[5] In retrospect, the limitation on trainers worked to the US and El Salvador's advantage because it forced us to practice through, with and by the El Salvadoran forces. It was their skin in the

game. The 55-man limit, however, was not planned; the small footprint was an accident.

Colombia (1999-present)

In initial conversations, the US and Colombian Governments could not agree on the objective of the national campaign plan, Plan Colombia (IDAD). Colombia wanted to focus on the Forces Armed Revolution (FARC), but the US wanted to focus on the drug cartels. The US viewed the cartels as the biggest threat to US National Security, and believed it could only support a conflict against that threat. The US never intended to involve itself in a Colombian civil war.

Although the Colombians disagreed with the US focus, the desire for US support won out. Using a strategy of persistent engagement combined with a small footprint, the partnership succeeded so well against the drug cartels that it created a vacuum. The FARC attempted to fill that void, which allowed the US and the Colombian Governments to focus on them as narco-terrorists. The FARC's expansion into narco-trafficking paved the way for further US support to Columbia, not just for police and law enforcement, but for the Colombian military with security assistance and training packages as well.

The US government again used the foundations of persistent engagement, small footprint (no more than 800 military and 600 contractors--this was more than the 55 man limit in El Salvador but significantly less than the US has had in Operations Enduring Freedom and Iraqi Freedom.) [7], and a national campaign plan from Colombia, Plan Colombia (IDAD). Plan Colombia is another example of a host-nation taking the lead in their country with successful long-term results. Both the US and Columbian governments got what they wanted, but, again, it was by accident and the result of an indirect strategic approach.

Philippines/JSOTF-P (2001-2015)

In 2001, the two terrorist groups, Abu Sayaf Group (ASG) and Jemaah Islamiva took a group of hostages for ransom in the southern Philippines. Within the group of hostages were several American citizens. Shortly after the kidnapping, the United States Pacific Command (USPACOM) responded with Operation Enduring Freedom-Philippines (OEF-P) and the deployment of the Joint Special Operations Task Force-Philippines (JSOTF-P). USPACOM planned to advise and assist Philippine security forces in counter-terrorist (CT) operations in the southern sector of the Philippines where the local government had lost much of the local control to the terrorist groups. The initial plan was to use the direct approach until the government of the Philippines objected for constitutional reasons. Therefore, an indirect/FID approach also had to be developed. [8]

The expected Philippine government objections came to fruition and resulted in the US and host-nation government efforts transitioning to an indirect approach through Civil Military Operations (CMO) rather than exclusively on CT. This combined effort assisted the Philippine government in reestablishing control in its southern islands. Once again, however, this was not the initial plan of USPACOM. The initial plan in response to the taking of US hostages was a maritime joint task force that would conduct US combat operations on the island. Ultimately, the limitations set by the Philippine government led to a successful, though alternate, and accidental approach.

Conclusion

US guidance and strategy documents directs the DoD to engage in persistent engagement, small footprint operations. Our joint doctrine also directs FID in support of host nation IDAD programs. Our history

however, defaults to the direct approach favored by policy not the indirect approach as directed by doctrine.

USSOCOM Special Operations Forces 2020 emphasizes building a network with our partners and establishing relationships through persistent engagement in accordance with both the guidance and the doctrine. These three cases demonstrate that although the results were not arrived at initially by following that guidance, successful results were attained when the principles were followed, even if by happenstance.

There are also more current examples of where that guidance has not been implemented and the efforts have not had successful results to include our operations in Afghanistan and Iraq. The template of persistent engagement, small footprint, FID, and IDAD program support has to be adjusted in each case to account for the host nation participation and considerations. But the principles of persistent engagement, small footprint and host nation lead don't change. The US should understand that it can achieve better results consistently if done deliberately rather than by accident.

continues to support Joint Special Operations University irregular warfare courses at the service components as well as the service component schoolhouses.

[1] David Kilcullen, The Accidental Guerrilla (Oxford: University Press, 2009)

[2] Defense Strategic Guidance, Sustaining U.S. Global Leadership: Priorities for 21st Century Defense (Offices Secretary of Defense, Washington D.C., 2012) 12, 9

[3] Special Operations Forces 2020, The Global SOF Network (USSOCOM, MacDill AFB Florida, 2013) 4

[4] ARSOF 2022, Special Warfare Magazine July-September 2014, Volume 27 Issue 3 (USAJFKSWCS Ft Bragg, NC, 2014) 5

[5] Seth Jones, Martin Libicki, How terrorist Groups End (Rand Corporation Study, 2008) xiii

[6] BG Joe Stringham, former USMILGP Commander El Salvador, interview held during El Salvador Panel Air War College Maxwell AFB Alabama June 2010

[7] Mark Moyar, Hector Pagan, Wil R. Griego, Persistent Engagement in Colombia JSOU Report 14-3 (JSOU: JSOU Press, 2014) 15, 18, 19

[8] Joint and Coalition Operational Analysis (JCOA), Partnered Counterterrorist Operations in the Philippines, A Case Study (JCOA, Suffolk VA, 2011) 3

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Rain of Ruin: Operational Design and the Pacific War, 1944-1945

By Colonel Gerard P. Tertychny, USA

"The trend in thinking in Washington was toward two mutually supporting advances across the Pacific, MacArthur's and Nimitz's, but with Nimitz's taking priority."[1] Coming on the heels of the Japanese attack against the U.S. Pacific Fleet at Pearl Harbor in December 1941, the U.S effort in the Pacific during the Second World War took place after senior U.S. and Allied leadership had decided on a "Germany first" strategy for confronting the Axis powers. Forced to simultaneously plan for and execute operations against Japanese forces, senior U.S. commanders in the Pacific and Joint Chiefs of Staff planners were plagued by political realities, differing service perspectives on strategy, and the seeming inability or unwillingness of the Joint Chiefs of Staff to identify a main effort. As Ronald Spector points out, the U.S. strategy for the defeat of Japan during World War II took the form of compromise. In reality, however, the senior U.S. civilian and military leadership, in deciding to pursue a two-avenue approach in the war against Japan, applied a methodology known today as operational design.

Background

By mid-1943, Allied efforts in Europe and North Africa were beginning to yield results. The Allies had driven German and Italian forces from North Africa, captured Sicily, disrupted Nazi war making capabilities, and forced the collapse of the Mussolini government in Italy. As a result, and following the Combined Chiefs of Staff conferences in 1943, codenamed TRIDENT and QUADRANT, the strategic issue that faced the Joint Chiefs of Staff was the need to understand the role that the war in the Pacific played in the overall global war and the need to develop a coherent strategy to address it. Senior leadership, therefore, called on the Combined Staff Planners to develop an estimate of the situation and an outline for the defeat of Japan.[2]

Confronted with British reluctance to emphasize operations in China or Burma, the Joint Chiefs of Staff issued guidance to the Joint War Plans Committee to develop a plan to defeat Japan as soon as possible after the surrender of Germany, preferably within twelve months. The result was the Appreciation and Plan for the Defeat of Japan, which recommended operations in both the Pacific and China-Burma and culminated in an invasion of Japan, operations that were estimated to continue into 1948.[3] At the heart of these long-range planning efforts was a debate over which axis of advance against Japan to emphasize: through the Central Pacific, from the south through New Guinea, or from the north through the Aleutians. For a time, the Joint Chiefs of Staff also considered attacks from the Soviet Far East and Southeast Asia, though both were eventually considered geographically and politically unrealistic and were discarded.

The requirement that faced the Joint Chiefs of Staff in early 1944 was to "resolve Pacific strategy once and for all."[4] Specific issues to be addressed included the appointment of an overall commander in the Pacific, the identification of a main effort, and the allocation of limited resources. In order to arrive at a strategy, the Joint Chiefs of Staff employed a methodology known today as operational design in order to "identify and understand the political aims of the war, determine the military objectives and allocate resources in support of them, and establish a military strategy to deliver them."[5]

Operational Design

While the term "operational design" has only been in use since 2002, the idea behind it goes back much further and the general concept was in use during World War II. As defined in Joint Publication 5-0, operational design is "a process of iterative understanding and problem framing" that "supports a recursive and ongoing dialogue concerning the nature of the problem and an operational approach to achieve the desired end states."[6]

The operational approach transforms current conditions into desired conditions and it is produced through understanding the strategic direction, understanding the operational environment, and defining the problem.[7] Critical to operational design, in addition to understanding the operational environment and defining the problem to be solved, is its continual review, updating, and modification in response to changes in the operational environment, desired end states, or the problem.

Strategic Direction

Joint Publication 5-0 defines strategic direction as "guidance that provides long-term as well as intermediate or ancillary objectives."[8] What the Joint Chiefs of Staff planners faced in early 1944 was the need to consider several political issues that directly influenced the U.S. policy in the Pacific. As Brower points out, the Joint Chiefs' "freedom of action to reconcile military strategy with national policy was meaningful only to the degree that they grasped national objectives."[9] One issue was the role of China, both during the war and in the post-war world. In addition, planners had to appreciate the issue surrounding the mandate for the unconditional surrender of Japan. Planners also had to take into consideration the will of the American people as the war dragged on and casualties mounted.[10]

The Chinese issue was fairly clear-cut: President Roosevelt's policy towards China had both short-term and long-term goals. The short-term need was to keep China in the war, thereby tying up Japanese forces that could have been used elsewhere in the Pacific and also providing staging areas for future operations against the Japanese homeland. Long-term, and as a result of U.S. support during the war, the U.S. looked to China as an ally in any disputes with the Soviets.

Not as clear was Roosevelt's and Churchill's policy of unconditional surrender with regards to Germany and Japan, which called for "a postwar world in which Germany and Japan would be unable to threaten the peace," something planners interpreted as "political guidance from which they were to shape strategy."[11] The Joint Chiefs would see the details of this policy as imprecise throughout the war, though it was clear enough to lead them to the conclusion that they needed to devise a military strategy that resulted in "the utter defeat of Japan's military," as Japan's attack on Pearl Harbor essentially ruled out the option of a negotiated settlement.[12]

The Operational Environment

Another issue facing planners was the need to understand the operational environment with regards to the war in the Pacific. Joint Publication 5-0 maintains that commanders and planners must address "friendly, adversary, and neutral actors that are relevant to a specific joint operation."[13] Key information in this effort includes, in addition to the strategic guidance, the nature of the conflict and any relevant history that might aid in the understanding of any friendly, enemy, or neutral party actions. Specifically, commanders and staffs must "analyze the operational environment and determine relevant and critical relationships between the various actors and aspects" that

exist.[14] One framework that is currently in use to analyze the operational environment addresses political, military, economic, social, information, and infrastructure (PMESII) factors. In addition, and based on the particular situation, factors such as geography and meteorology can also be considered. The requirement to understand the operational environment was particularly evident in the planning effort for the Pacific war that took place in 1943-44 and planners considered various relevant factors.

General George Marshall expressed a lingering concern that the American people would lose the will to continue the fight if faced with mounting casualty figures and costs and the Joint Chiefs appreciated the need to consider the will of the American people when addressing China's position and the unconditional surrender mandate. In Roosevelt's opinion, Americans were not able to fully appreciate "the sacrifice necessary to bring about total victory," so any strategy the planners devised for the Pacific would have to take into account cost, casualties, and time, issues that might influence American tolerance for operations in support of China and for unconditional surrender.[15]

Though the leadership of both the U.S. Navy and the U.S. Army looked upon the war in the Pacific as a "redemptive crusade" against Japan, the Navy, led by Admiral Ernest King and Admiral Chester Nimitz, saw the war as being waged against the Japanese because of their attack on Pearl Harbor and as one that would be characterized by naval dominance.[16] General Douglas MacArthur, however, viewed the war as being waged against Japan because of its occupation of the Philippines, which resulted in MacArthur's "humiliating departure from Corregidor," and because of a moral obligation to liberate the islands.[17] In addition, pre-war planning

and existing war plans most likely influenced service thinking.

Despite a policy that called for the defeat of Germany first, British and American leadership nevertheless supported a counteroffensive against Japan when they met at the Casablanca Conference in January 1943. U.S. leadership was generally in agreement with a strategy that made use of limited counteroffensives in the Marshalls, the Carolines, the Solomons, the Aleutians, and New Guinea, all leading to a full-scale assault on Japan. Again, the debate centered on determining where to place the main effort, command and control options, and the allocation of resources. The resulting argument yielded two possible routes U.S. forces could use to attack Japan, each with its own advocates, advantages, and liabilities.

One proposed route advanced from Hawaii, through the Marshalls, the Carolines, the Marianas, and Palaus, to Japan and offered several advantages. First and foremost, an advance across the Central Pacific against Japan was, in the Navy's estimation, the most direct route. In addition, such an advance would take advantage of U.S. naval and carrier air power to reduce Japanese island positions, destroy the Japanese advantage of interior lines, cut off Japan from the Netherlands East Indies oil supplies, and place U.S. forces within striking distance of Japan. Last, such an advance would likely lure the Japanese fleet into an open, decisive battle, where it would be destroyed by the U.S. fleet.[18]

Not without disadvantages, the Central Pacific route would, in MacArthur's estimation, require multiple costly frontal assaults against Japanese island fortresses. In addition, because of the distances involved, this axis would reduce momentum by requiring forces to return to Hawaii to resupply after each phase, and would take

U.S. forces out from under the protection of land-based air support.[19]

A second proposed route advanced from Australia, through the Southwest Pacific to New Guinea, the Philippines, and Formosa, to Japan. Engaged in an ongoing operation in New Guinea, MacArthur saw the effort in the Southwest Pacific as a great opportunity to deal the Japanese a decisive blow and drive quickly to the Philippines, which he saw as the key to the war in the Pacific. His effort would also cut off Japan from the oil of the Netherlands East Indies, provide a base in the Philippines for attacks against Japanese shipping and against Japan itself through the use of long-range bombers, expose the Chinese coast to attack, possibly provoke the Japanese fleet into an open action, and take advantage of Australia as a staging base.[20]

In Admiral King's opinion, however, this axis was based on a New Guinea operation that was originally intended to defend Australia, not to attack Japan directly and bring about an end to the war. In addition, the New Guinea operation was, at the time, bogged down in a seemingly endless jungle battle and was always threatened by Japanese air, naval, and land forces in the area.

The Problem

Having absorbed the strategic direction, and having considered the Navy and Army perspectives on framing the operational environment, the planners at the Joint Chiefs of Staff then looked to defining the problem. Using Joint Publication 5-0 as a model, operational design calls for the development of a problem statement that identifies "how to transform the current conditions to the desired end state – before adversaries begin to transform current conditions to their desired end state."[21] The problem facing the American forces in the Pacific, therefore, "was how to end Japanese

resistance before Allied exhaustion and war-weariness forced a compromise on Allied war aims."[22]

A Solution

The operational approach that results from analyzing the strategic direction and the operational environment and defining the problem describes the "commander's visualization of a broad approach for achieving the desired end state."[23] According to Joint Publication 5-0, it provides a foundation for planning guidance, it provides a model for execution of the campaign, and it enables a better understanding of the operational environment. In addition, the operational approach addresses the strengths and weaknesses of various actors, identifies opportunities and threats, looks at the route from existing to desired conditions, and identifies likely consequences.[24]

On 12 March 1944, the Joint Chiefs of Staff met to decide on the Pacific strategy and presented a compromise solution to both MacArthur and Nimitz. Both commanders were instructed to initiate offensives "across the Pacific Ocean toward the China-Formosa-Luzon area."[25] Nimitz was specifically instructed to move across the Central Pacific, capture the Marianas, and attack Palaus. MacArthur was to support Nimitz (though he always viewed his theater as the main effort) by seizing New Guinea and Mindanao in the Philippines in order to establish air bases to reduce Japanese forces there and in preparation for further operations against Formosa, possibly via Luzon.

This strategy, while seemingly indecisive, actually played out well and addressed the problem of ending Japanese resistance while taking into consideration several characteristics of the operational environment. First, it allowed for both MacArthur's and Nimitz's ideas to be

employed and went a long way toward alleviating the inter-service rivalry that existed between the Army and the Navy, as both senior Army and Navy leaders had no problem with exercising command over counterpart forces, but were not willing to be commanded by the other.[26] In addition, the two advances were mutually supporting: Nimitz's offensive pulled Japanese naval and air power from the Southwest Pacific and MacArthur's land campaigns pulled Japanese troops from the Central Pacific. Also, the dual-offensive strategy forced the Japanese to spread their forces thin and kept them guessing as to where the next American move would come, while Nimitz and MacArthur could maintain the initiative and concentrate forces against weaker Japanese positions.[27]

A Changing Operational Environment and Iterative Understanding

Using the "Germany first" strategy, Allied forces had knocked Italy out of the war in 1943, had invaded France in 1944, and had brought the European war against Nazi Germany to an end in May of 1945. In the Pacific, the two-pronged strategy decided upon by the Joint Chiefs of Staff in March 1944 had been successful in driving Japanese forces back across the Pacific. By mid-1945, simultaneous offensives by Nimitz and MacArthur had captured island bases in the Central Pacific, pushed the Japanese out of New Guinea and the Philippines, destroyed the Japanese surface fleet over the course of several engagements, and put U.S. land-based heavy bombers over the Japanese mainland.

This two-axis strategy was working but took time, cost money, and resulted in considerable casualties. By August 1945, the war in the Pacific had been going on for almost four years since the attack on Pearl Harbor and for almost eighteen months since the decision to utilize this approach. Three

months earlier, Allied leadership in Europe had received the German leadership's unconditional surrender and an increasingly war-weary American population was looking for victory in the Pacific. In addition, the monetary cost of the war was astronomical, the continued rationing of food, gasoline, and basic necessities was taking its toll, and senior military leadership feared a "great impatience" on the part of the American people.[28] Last, the previous six months had seen some of the most savage fighting in the Pacific, at Iwo Jima and Okinawa, where U.S. servicemen had faced suicidal opposition from the Japanese and suffered staggering casualties on land and at sea.

The New Problem and Alternatives

Faced with the difficult decision concerning which course of action to choose with regards to the continuation of the war with Japan, President Truman, who had risen to the Office of the President after Roosevelt's death in April 1945, had to consider the political and military realities of the situation and the problem to be solved. In the summer of 1945, he was presented with a number of alternatives to bring about a Japanese surrender. Each of these options carried risks to the three political issues that faced President Truman and that influenced U.S. policy in the Pacific: the role of China during the war and afterwards, the mandate for an unconditional surrender of Japan, and the will of the American people.[29] The problem to be solved now was how to bring about a Japanese surrender as soon as possible, before China negotiated a separate peace with Japan or costs and casualties resulted in the American people losing their will to continue the war.

While keeping China in the war to tie down Japanese troops was an important part of the U.S. strategy, by late 1944, China under Chiang Kai-shek "had been

discounted as an effective ally."[30] With China on the verge of collapse by the summer of 1945, Chiang might possibly negotiate a separate peace with Japan, freeing more Japanese troops for action against U.S. forces. In addition, the policy of unconditional surrender, agreed upon by the allied powers and backed by the American population, was seen as necessary to the complete defeat of Japan and her military.[31] This policy was directly linked to the will of the American people. As the war dragged on through its fourth year, American leaders began to question the ability of the American people to support operations in the Pacific that might continue into 1946 and beyond. Truman's decision, therefore, had to take into account the monetary cost of continuing the war, the casualties that the U.S. and its allies would suffer, and the time required to execute the decision.

One option was to continue the bombardment of Japanese cities through the use of heavy bombers. American long-range bombers had been striking targets in Japan since 1944, operating from bases in China and the Marianas, and these massive strikes against Japanese cities and industry were causing significant damage and casualties. Many advocates of air power believed that these attacks would, if increased in intensity through the occupation and use of a string of airbases around Japan, be sufficient to compel a Japanese surrender.[32]

Another prospective strategy was for the U.S. to simply continue its blockade of Japan. U.S. air, surface, and submarine forces had all but isolated Japan from any importing of food or other materials and many believed that it would be simply a matter of time before the Japanese leadership capitulated. Supporting this belief was the experience gained from hypothetical war games with Japan conducted at the Naval War College throughout the 1920's and 1930's, which almost always concluded

with a Japanese surrender brought about by a naval blockade.[33]

The bombardment of Japanese cities, while devastating, was showing no signs of driving the Japanese leadership towards unconditional surrender. This is incredible when one considers that, on a single night, 9 March 1945, 279 B-29 heavy bombers bombed Tokyo in a raid that delivered 2,000 tons of incendiary bombs and resulted in firestorms that boiled water in canals, melted glass windows, burned 16 square miles of the city, killed over 83,000 civilians, injured 40,000 more, and left a million homeless.[34] A similar bombing campaign in Europe resulted in significant Allied losses in manpower and material and still required a ground invasion of Germany to force an unconditional surrender. The blockade of Japan, also effective, would take far too much time to compel surrender and might send the message to Japan that the U.S. lacked the will to act decisively. Both options would also prolong the war, increasing the likelihood of Chinese leadership seeking a separate peace with Japan and further draining American resources and will power.

Another option was a massive amphibious invasion of the Japanese home islands. Codenamed "DOWNFALL," the invasion of Japan was being planned for November 1945, when U.S. forces would invade Kyushu, and March 1946, with an invasion of Honshu near Tokyo. This option, according to General Douglas MacArthur, stood the best chance of success, as it "was the only one that would permit application of the full power of our combined resources – ground, naval, and air – on the decisive objective."[35]

The planned amphibious operation against Japan was estimated to be extremely costly in American, Allied, and Japanese lives, as evidenced by the recent fighting on Okinawa. Here, U.S. casualties leapt to 35

percent, higher than in any other Pacific battle and across terrain that was "strikingly similar" to that of Kyushu.[36] Japanese military forces in the home islands numbered several million men. They, as well as the civilian population, would be fighting on their home soil and would be justifiably motivated, prompting Allied estimates of "200,000 casualties and 50,000 fatalities."[37] Such an invasion would prolong the war into 1946, at least, and carried the risk of the Soviet Union intervening in the northern areas of the Japanese home islands. However, the planning and preparation for the invasion of Japan could continue regardless of which course of action Truman chose and, should the chosen option prove ineffective; the invasion could still be launched.

Truman's Decision

The successful detonation of an atomic weapon in July 1945 gave President Truman an additional option. He could use it against civilian targets, military targets, or in a demonstration to the Japanese leadership of its destructive force, possibly giving them a legitimate reason for surrendering - the excuse that they were beaten by science and technology.

Assessing the situation, Truman decided to use an atomic weapon against a target on the Japanese mainland, determining that this was the best way to solve the problem that existed at that time and end Japanese resistance. The dropping of the first bomb on Hiroshima on 6 August 1945, and a second bomb on Nagasaki on 9 August 1945, resulted in a Japanese surrender on 14 August. Though the unconditional surrender mandate was modified, as Emperor Hirohito remained on the throne, President Truman had brought the war in the Pacific to a conclusion in a week, and not with "an invasion of Japan and 16 more months of war."[38]

Conclusion

The Joint Chiefs of Staff planners, after what might be considered a slow start, employed the methodology of what is now known as operational design in their development of the two-axis strategy for the Pacific War in World War II. In developing an operational approach, planners initially struggled to understand the strategic guidance, as espoused by President Roosevelt. However, they and the Joint Chiefs of Staff "worked hard to identify and understand the political aims of the war, in their view the first step in shaping a military strategy for Japan's defeat."[39]

Planners took into consideration service perspectives, the opinions and personalities of the commanders in the Pacific, logistical realities, and Japanese capabilities in understanding the operational environment. The "Army-Navy" and "MacArthur-Nimitz" debates resulted in no assumptions going unchallenged and the development of better operational approaches being devised than might otherwise have been the case. They used all of this information to identify the problem to be solved, and then determined the military objectives, the resource requirements, and the compromise two-axis strategy to be used in solving that problem. The iterative understanding and problem solving that is characteristic of operational design led to Truman's decision to use atomic attacks on Hiroshima and Nagasaki and brought about a conclusion to the war in eighteen months, several years shorter than original estimates and only three months after the surrender of Germany, well inside the guideline of twelve months.

President Truman has come under some criticism for his decision to use atomic weapons, with some citing how they were unnecessary as Japan was on the verge of collapse. However, he had to make a decision armed only with what he knew at

the time. The Japanese had put up a fanatical resistance at Okinawa and could only be expected to fight even harder on their home ground, most likely resulting in untold American and Japanese casualties and the utter destruction of Japan. Naval blockade and massive aerial bombing operations against Japanese cities had not brought the Japanese leadership any closer to surrender. Also, the costs of the war were already enormous, as were the casualties suffered by American and Allied forces. Truman would have had a very difficult time explaining to the American people that he had atomic weapons but did not employ them if his decision had resulted in countless more lives lost.

As he stated in a press release after the atomic bombing of Hiroshima on 6 August 1945, President Truman revealed the reason for his decision to use such weapons, that is, "to obliterate more rapidly and completely every productive enterprise the Japanese have above ground in any city."[40] He made his decision at a time of considerable tension and disagreement among senior U.S. civilian and military leaders and in response to a change in the overall political, strategic, and military situation, both globally and in the Pacific. U.S. forces and leaders faced the prospect of continued casualties and the distinct possibility of the war entering its fifth year without a surrender by the Japanese government or with Japanese forces disregarding any surrender and continuing the fight, both in the Home Islands and in China and Southeast Asia. Based on the information he had at the time, President Truman made the decision to use atomic weapons in order to compel a Japanese surrender in as short a time as possible, thereby achieving the war's political aims and bringing about its conclusion without "another Okinawa" fought "from one end of Japan to the other."[41]

Author Biography

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[1] Ronald H. Spector, *Eagle Against the Sun,* (New York, NY: Vintage Books, 1985), 279.
[2] Charles F. Brower, *Defeating Japan: The Joint Chiefs of Staff and Strategy in the Pacific War, 1943-1945* (New York, NY: Palgrave-MacMillan, 2012), 41.
[3] Brower, 43.
[4] Stephen R. Taafe, *MacArthur's Jungle War: The 1944 New Guinea Campaign,* (Lawrence, KS: University Press of Kansas, 1998), 25.
[5] Brower, 152.
[6] U.S. Joint Chiefs of Staff, *Joint Publication 5-0: Joint Operation Planning,* (Washington, DC: Government Printing Office, 2011), III-1 – III-2.
[7] U.S. Joint Chiefs of Staff, III-7
[8] U.S. Joint Chiefs of Staff, III-7.
[9] Brower, 5.
[10] Brower, 5.
[11] Brower, 8.
[12] Brower, 9.
[13] U.S. Joint Chiefs of Staff, III-8.
[14] U.S. Joint Chiefs of Staff, III-9.
[15] Brower, 9-10.
[16] Taafe, 17.
[17] Taafe, 16.
[18] Taafe, 15.
[19] Taafe, 17.
[20] Taafe, 18.
[21] U.S. Joint Chiefs of Staff, III-13.
[22] Brower, 43.
[23] U.S. Joint Chiefs of Staff, III-13.
[24] U.S. Joint Chiefs of Staff, III-13-14.
[25] Taafe, 27.
[26] Wayne A. Silkett, "Downfall: The Invasion that Never Was," *Parameters* (Autumn 1994): 112.
[27] Taafe, 30.
[28] Thomas B. Allen and Polmar Norman, *Code-Name Downfall: The Secret Plan to Invade Japan and Why Truman Dropped the Bomb* (New York, NY: Simon and Schuster, 1995), 126.

[29] Brower, 8-9.

[30] Allen and Norman, 119.

[31] Theodore H. McNelly, "The Decision to Drop the Atomic Bomb" (presented at the Pearl to V-J Day: World War II in the Pacific Symposium, Bethesda, MD, 1995), 133.

[32] Louis B. Morton, "The Decision to Use the Atomic Bomb," In *Command Decisions*, ed. Kent Roberts Greenfield (Washington, DC: Office of the Chief of Military History, United States Army, 1960), 500.

[33] Silkett, 111.

[34] Daniel L. Haulman, *Hitting Home: The Air Offensive Against Japan. The U.S. Army Air Forces in World War II*, (Washington, DC: Air Force History and Museums Program, 1999), 22.

[35] Morton, 501.

[36] Silkett, 118.

[37] Michael D. Pearlman, *Unconditional Surrender, Demobilization, and the Atomic Bomb,* (Fort Leavenworth, KS: Combat Studies Institute, 1996), 1.

[38] Allen and Norman, 216.

[39] Brower, 150.

[40] Ayers Papers. *Press Release by the White House*, August 6, 1945.

[41] Silkett, 118.

International Code of Conduct: A Cybersecurity Panacea or Pandora's Box?

By Major Amanda Current, USA and Lieutenant Colonel Bryan Redash, USAF

The post-Cold War Era is often described as the "information age" in which the exponential advancement of technology revolutionized the way nation states, non-state actors and individuals interact in the global system.[1] Information and communication technologies (ICTs) have reshaped the international security environment, and dialogue concerning cyberspace security has entailed a "return of the state" as sovereign nations grapple with conflict and cooperation in a domain that transcends physical borders.[2] At present, the absence of a global cybersecurity treaty has created a vacuum that authoritarian states are exploiting to advance a revisionist narrative for international Internet governance. To that end, Russia and China are leading a cohort of like-minded states— to include members of the Shanghai Cooperation Organization (SCO)—that promote the concepts of *Internet sovereignty* and *information security*, which entitle states to set sovereign norms and manage content flow to protect their populations from the threat of hostile information.[3] By contrast, the United States is among a group of states—sometimes referred to as the "Western Consensus"—which advocates an open, interoperable medium for the free flow of ideas and information that transcends national borders.[4] Thus, both United States and Russian governments are behaving as "norm-entrepreneurs" during the formative stages of a burgeoning cybersecurity paradigm.[5]

The international "tug-of-norms" vis-à-vis cybersecurity can be traced back almost two decades. In 1998—and every year since—Russia introduced a draft resolution on "Developments in the field of information and telecommunications in the context of security" in the First Committee of the UN General Assembly.[6] The resolution called upon member states to consider the issues underlying cybersecurity, define concepts such as unauthorized interference or misuse of systems, and to strengthen global information systems. Two years after introducing the draft resolution, Russia proposed the establishment of a special Group of Governmental Experts (GGE) to address existing and potential threats to information security.[7] When Russia opened the resolution for co-sponsorship in 2005, China was the first of 36 member states to endorse it.[8] In September 2014, Russia and China led the resubmission of what is now termed the International Code of Conduct for information security to the UN General Assembly during the fourth GGE.[9] *As a leader among the Western Consensus, the United States should not endorse the Code of Conduct proposed by Russia, China, and other members of the Shanghai Cooperation Organization (SCO).*

Divergent Ideologies: Cyber-Realism, Cyber-Liberalism & the Role of Soft Power

Over the last 20 years, an "intellectual evolution" has taken place regarding the relationship between cyberspace and state power.[10] The Internet has transformed relationships among states, challenging the Westphalian international system that has existed since 1648.[11] The viability of existential threats occurring in the cyber domain has emerged from a "fear of increased vulnerability and loss of control

that presumably is the result of moving from an industrial to an information society."[12] According to Assistant Professor Mary McEvoy Manjikian of the Robertson School of Government, two narratives have emerged to describe cyberspace from an International Relations theory perspective: Cyber-Liberalism and Cyber-Realism.[13] Cyber-Liberalism is further subdivided into utopian and regulatory strands (See Figure 1). "Utopians see cyberspace's development as an organic growth process, while regulators see the Internet evolving due to focused international cooperation."[14] The latter strand of the Cyber-Liberalist regime describes what has been referred to as the Western Consensus—a pragmatic view of international cooperation and cyber regulation espoused by the United States and most Western European countries.[15]

	Utopian	Regulatory	Realist
Territory	Extraterritorial No neighborhoods Virtual world and real world are unrelated "Outer space"	International territory (like an ocean) No center Borders exist	Extraterritorial site of real world power Real estate, neighborhoods Sanctuaries, Dark Web Firewalls Centrally managed and allocated "spillover" from virtual world to real world
Power	Subvert existing power structures	Reproduce existing power structures	Strengthen existing power structures
Identity/nationality	Disembodied, anonymous actors "Netizen" Internet renders nationality irrelevant	Digitized body possessing nationality Internet allows for nationality	Civilians to be defended by military Jihad represents "virtual imagined community" Internet is nation building
Credibility	Irrelevant	Principal-Agent Creation of trust	Zero-sum Good to be protected
Information	Infinite, shared	Free good Open Source Movement	Can be owned Weapon in fight for territory, credibility "preemptive" information strikes War of Ideas
Regulation	Communitarian Norms	Market-determined Self-policing	US as benevolent hegemon
Growth	Organic Autopoeisis	"Lex Informatica"—developer and social processes work to develop rules	Hybrid of centrally directed and evolving through code-writing

Figure 1: Competing Views of Cyberspace[16]

Conversely, the governments of China and Russia belong to the Cyber-Realist camp that stresses the importance of ICT "as a technological change in the existing international system."[17] Cyber-Realists adhere to the core tenets of realism, which observe states as rational actors competing for survival in an anarchical international system. This faction views the cyber domain as an "extraterritorial site of

real world power."[18] Furthermore, this camp is driving what some researchers have called a "neo-Westphalian process in the digital era" or a "Cybered Westphalian Age," by advocating virtual fences along physical territorial borders.[19] For both camps, these philosophical distinctions apply to states' treatment of the cyber domain and do not necessarily align with their International Relations (IR) behaviors in the physical realm.

Internet sovereignty and *information security* serve as the ideological foundation of the proposed Code of Conduct. The Russian and Chinese governments "strongly support the idea of national control of all internet resources that lie within a state's physical borders, and the associated concepts of application of local legislation."[20] Supporters of the Code of Conduct also espouse a concept of *information security*—codified in the Code of Conduct presented at the fourth GGE— which "promotes stability and elimination of threats to both information and communication infrastructure and the *information itself* [emphasis added]."[21]

Information security differs from the concept of *cybersecurity*—the term preferred by the Western Consensus— primarily in the characterization of a threat. Whereas *cybersecurity* recognizes the threat of hostile code, *information security* is based on hostile intent.[22] Thus, under the Cyber-Realist paradigm, any information seen as harmful to a sovereign's stability, culture, or social consciousness is considered a weapon propagated through cyberspace. The idea that information could be viewed as a weapon appeals to authoritarian regimes while Cyber-Liberalists (i.e., the Western Consensus camp) find this ideology inherently undemocratic.[23] Additionally, liberal democracies have opined that the concept of *Internet sovereignty* promotes

barriers to the flow of information along geographical borders, which is counter to the spirit upon which the Internet was built.

Professor Joseph S. Nye, an accomplished IR scholar, has likened the current status of cybersecurity policy to that which governed the nascent nuclear program in 1960.[24] The tendency to draw parallels between nuclear and cyber policy inevitably leads to discussions about strategic deterrence and norms-seeking initiatives.[25] Nye summarized the international cybersecurity "tug-of-norms" concisely: For more than a decade, Russia has sought a treaty for broader international oversight of the Internet, banning deception or the embedding of malicious code or circuitry that could be activated in the event of war.… The United States has resisted agreements that could legitimize authoritarian governments' censorship of the [I]nternet.… Even advocates for an international law for information operations are skeptical of a multilateral treaty akin to the Geneva Conventions that could contain precise and detailed rules given future technological volatility, but they argue that *like-minded states could announce self-governing rules that could form norms for the future* [emphasis added].[26]

This characterization is noteworthy because the soft power advantage will go to those states whose "dominant culture and ideas are closer to prevailing global norms … [with] access to multiple channels of communications … [and whose] credibility is enhanced by their domestic and international performance."[27] Moreover, the relative importance of soft power in the information age has increased because soft power relies on credibility in an information-rich environment. The ability of soft power to traverse real and virtual terrain—and the notion that the real world needs to be protected from the virtual world—leads Cyber-Realists to extend their reach to the governance and enforcement of norms within cyberspace as a whole.[28] A skillful use of soft power will arguably drive the establishment of normative behavior in the cyber domain. Because the effectiveness of soft power is directly proportionate to a state's credibility, the United States must maintain a message of international cooperation to encourage a harmonized set of policies that are shared with like-minded partners.

Supporter Concerns – Russia / China

It is not inaccurate to characterize Russia and China as cyber norm-entrepreneurs in their own right. They have consistently tabled cyber policy initiatives and actively sought additional international validation through the UN for their proposals. Some of these same recommendations have encountered strong international opposition because they do not adequately address infrastructure and network protection—tenets deemed critically important to the West. This would appear to be a deliberate attempt by the Russians and Chinese not to become signatories to any policy that would explicitly proscribe cyber-espionage, Distributive Denial of Service (DDoS) attacks, and other infrastructure or network-degrading actions. Similarly, the proposed Code of Conduct would empower signatories at the national level to filter, block, or otherwise limit the free flow of ideas across the cyber domain, as a counter to what many Russian and Chinese leaders might consider to be corrupting influences from the West.

A second, more historical basis for understanding current Russian and Chinese actions and predicting future behavior in the cyber realm emerges by examining each state's master narratives. The Master

Narratives platform—a collaborative project of the Open Source Center, Monitor 360, and various partners across the U.S. government—focuses on "surfacing and articulating master narratives across a range of important geographies … [which] can be used to understand critical audience segments and key influencers better, build analytic capabilities, and develop actionable messaging and counter-messaging strategies."[29] As defined by the Open Source Center, master narratives are "historically grounded stories that reflect a community's identity and experiences, or explain its hopes, aspirations, and concerns."[30] The master narratives help illuminate each state's respective motivations while also offering possible insights into how best to reconcile the disparity between Cyber-Liberalist and Cyber-Realist positions. In the Chinese case, their internal cyber strategy is driven by a mandate "to adopt whatever is useful from more advanced countries … [to] reclaim its rightful place as a world power."[31] This core master narrative legitimizes, if not encourages, cyber-espionage as a means to this strategic end. A second narrative emphasizes re-attaining their historical status as an East Asia hegemon after having been humiliated for much of the last century.[32] This master narrative contributed to the development of national strategic guidance, which recently included *informatization* and the modernization of China's information technology as a top priority.[33]

Russians are similarly motivated by three distinct master narratives, each with historical underpinnings critically important to their cyber strategy. The first of these highlights Russia's post-Cold War transition. They quickly went from enjoying superpower status in a bipolar world to accepting the United States ascent to their current role as the hegemonic superpower in a unipolar world. Russian strategy is now focused on restoring their position as a credible international power by positioning themselves as essential partners for problem resolution and multilateral treaty development.[34] Their actions to promote the International Information Security Resolution and subsequent Code of Conduct reinforce that theme.

The second master narrative informing Russia's cyber strategy is more conspiratorial in nature, centering on the belief that few other countries are truly Russia's allies, and that Russia can only rely upon itself.[35] This perception, coupled with a third master narrative—one reinforced by nationalism and a desire to preserve national culture—both link directly to Russia's apparent reluctance to consider any international cyber pact that would deprive them of the ability to control the content of the Internet within their sovereign borders.[36]

Dissenter Concerns – U.S. / Western Consensus

In contrast to the Russian and Chinese cohorts' focus on state actors and internal security measures, the Western Consensus response to the Code of Conduct suggests the existence of a loose agreement among the Cyber-Liberalist camp. In December 2013, the UN General Assembly acknowledged the Code of Conduct proposed by SCO member states. As part of the resolution, the UN invited all members to provide comments back to the Secretary-General regarding the recommendations proposed in the resolution.[37] Based on responses received in June and September of 2014, the Western Consensus—or Cyber-Liberalist—point of view can be distilled down to four key themes.

The first theme indicates a belief that existing international law is relevant and malleable enough to address the actions of

states in the cyber domain. For example, the Australian government maintains that "existing international law provides the framework of *State behavior* [emphasis added] in cyberspace and for appropriate responses to unlawful activity by States."[38] They go on to declare this includes, where applicable, "international humanitarian law [IHL], law regarding the use of force, international human rights law and international law regarding State responsibility." [39] While the Australian position supports the notion that existing international law defines appropriate behavior and norms in the cyber domain, they also assert that "elaborating how international law applies to State behavior in cyberspace in both conflict and non-conflict situations, while acknowledging the complexity involved, is a priority task for the international community." [40] The Canadian response expands on this position by deeming "international law in cyberspace as the cornerstone for norms and principles for responsible State behavior."[41] These sentiments echo the findings of the third GGE, which concluded:

[I]nternational law and in particular the United Nations Charter, is applicable and is essential to maintaining peace and stability and promoting an open, secure, peaceful and accessible ICT environment [and that] State sovereignty and the international norms and principles that flow from it apply to States' conduct of ICT-related activities and to their jurisdiction over ICT infrastructure with their territory.[42]

The second theme that differentiates the Cyber-Liberalist camp from Cyber-Realists is the explicit support voiced by the Western Consensus for a free, open, secure, and accessible Internet allowing for freedom of expression online. The French position is clear on this point: "France does not consider information as such to be a

potential source of vulnerability requiring protection, except under conditions strictly established by law, in a proportionate and transparent way, in accordance with article 19 of the International Covenant on Civil and Political Rights."[43] Austrians provide additional support to the ideal of an open and free Internet at the international level. They advocate "the free exercise of all human rights must be guaranteed in virtual space; particularly, the right to freedom of expression and information must not be restricted unduly in the internet." The Korean position merges the idea of a free and open Internet with broad ideals and values shared by western nations regarding economic liberalism; that is, in addition to providing greater economic prosperity, "an open and secure cyberspace is essential to increase human accomplishment and promote democratic participation."[44]

The principle of unimpeded flow of information and ideas in the cyber domain underscores the next theme: support for democratic values. According to the Spanish respondents, these values include democracy, human rights, and the rule of law.[45] Additionally, Sweden advocated a European Union (EU) cyber policy specifically based on the EU's "fundamental values and interests."[46] Sweden was among a "core group of States that initiated Human Rights Council resolution 20/8 (2012), in which the Council affirmed that the same rights that individuals have offline must be protected online."[47] Sweden also strongly supported the "Freedom Online Coalition, a group committed to advancing Internet freedom worldwide."[48] The Canadians further emphasized this point by stating a balance must be struck between information security and respect for human rights and fundamental freedoms. Specifically, the Canadian respondents identified individual freedoms, "including freedom of expression,

association and assembly and respect for privacy," must be protected in the virtual realm.[49]

The final theme common to most Cyber-Liberalist responses is a clear emphasis on combating cyber-crime. Germany's comments outlined a few initiatives they believe will support this endeavor. Over the next four years, Germany intends to focus on efforts to improve "consumer protection; amendments to the criminal law to better protect individuals; the passing of an IT [information technology] security law with mandatory minimum IT security standards for critical infrastructure; and an obligation in respect of all federal authorities to invest 10 percent of their IT budget to improve the security of their systems." In response to concerns regarding potentially unlawful surveillance or interceptions of communications, Germany is strongly encouraging Internet service providers to encrypt their telecommunications.[50] Increasing emphasis on encryption would also serve to increase the difficulty cyber criminals encounter while exploiting their targets. Furthermore, in an effort to combat cyber-crime and protect personal data and privacy, Portugal instituted mandatory reporting of any personal data violations.[51] These international responses punctuate a stark contrast between the Cyber-Realist and Cyber-Liberalist camps: while Russians emphasize the potential danger posed by the proliferation of information weapons, the "western block hardly touched upon the issue of information warfare and weapons, principally rejecting the need for disarmament and … emphasizing the *criminal misuse* of IT [emphasis added]."[52]

The collective response from Western Consensus states to the Code of Conduct proposed by the SCO states flowed from beliefs that are fundamental to the Cyber-Liberalist paradigm. This camp contends that a free, open, secure, and accessible Internet should serve as a common medium for the unrestricted flow of information and exchange of ideas on a global level. This perception of the role of the Internet is central to supporting and advancing fundamental human rights and democratic values in a globalized international system.

Legal Analysis

The absence of an international treaty on cyber policy is problematic for several significant reasons. Foremost among these is until there is concurrence on regulatory policy, global actors will continue to feel unconstrained in their actions. As technology advances, world processes become more IT-dependent, and the ubiquity of the Internet grows, malign cyber activity will also grow proportionately, as will the destructiveness of its effects. States, individuals, and critical infrastructure will become increasingly vulnerable. An international accord will not protect everyone, but it will go a long way towards defining and subsequently countering illicit activity in cyberspace.

The *Tallinn Manual* is a superb first step in this direction. Initiated by the North Atlantic Treaty Organization Cooperative Cyber Defence Centre of Excellence (NATO CCD COE), the *Tallinn Manual* serves as a comprehensive restatement of international law governing cyberspace.[53] The manual provides 95 separate legal rules, each followed by a detailed analysis, to include differing perspectives on possible applications. Although the document does not constitute official cyber law, it could in the future conceivably be used as a baseline for developing customary law within the framework of cyber cases held at either the International Court of Justice (states) or the

International Criminal Court (individuals). Produced by 20 international law scholars, the *Tallinn Manual* addresses moral and legal concepts such as "sovereignty, jurisdiction, and State responsibility insofar as they relate to operation of the *jus ad bellum* and *jus in bello*."[54] For the time being, much work remains to be done at the international level to codify norms and develop more of an international consensus on the taxonomy of cyber offenses, including questions regarding the viability of applying the LOAC, definitions of an act of war in the cyber realm, and what might constitute appropriate, and legitimate, defensive responses in the wake of a cyber-attack. Content notwithstanding, a forceful document—with legal authority and international legitimacy—is critical.

Rather than resolve some of the aforementioned legal challenges, the SCO-backed Code of Conduct actually clouds the international regulatory landscape. It also may reflect more Machiavellian intentions on the part of its authors, or what *Tallinn Manual* editor and cyber law expert Michael Schmitt calls "peacetime lawfare."[55] The concept of peacetime lawfare involves the use of "law or other regulatory regimes against one's enemy."[56] The SCO are likely well aware that if the United States were to sign onto the Code of Conduct, it would impose significant constraints on the Cyber-Liberalist notion of the cyber domain. Broader international acceptance of the Code of Conduct would enable the Russians, Chinese, and others to object to U.S. behavior at the slightest transgression while denying any violations of their own. Mr. Schmitt avers that lawfare, rather than a quest for best practices and open compliance, at least partially explains the Cyber-Realist authoritarian regimes' motivations behind their proposal.[57]

While the *Tallinn Manual* has been lauded by most Western scholars as a noble attempt to clarify international law and preempt a cyber-catastrophe, several criticisms have been levied against the same, namely from member states of the SCO and the BRICS (Brazil, Russia, India, China, and South Africa) grouping of emerging economies.[58]

Despite the disparate priorities between the Cyber-Realist and Cyber-Liberalist states, however, there is reason for optimism. Past precedent exists for broad international collaboration on issues with global impact. The Intergovernmental Panel on Climate Change (IPCC), the Nuclear Non-Proliferation Treaty (NPT), and the Vienna Convention for the Protection of the Ozone Layer, are but three among many pacts that have scored some significant successes in reconciling a wide array of interests and priorities. It is reasonable to think the same is possible for cyber.

Conclusion and Recommendations

The concepts of sovereignty, national security, and the role of political institutions are all changing in the age of the Internet. The increasingly pervasive nature of information technology is driving a "relentless digitization across all facets of human society."[59] According to some observers, states are reaching out to control what they fear from the Internet: "the lack of sovereign control over what comes through their borders."[60] International cyber behaviors and initiatives are clearly distinguishable between Cyber-Realists and Cyber-Liberalists. For Cyber-Realists, states translate their foreign relations practices to the cyber domain, "essentially reproducing the security dilemma in the virtual world."[61] Russia, China, and other authoritarian states view unfettered information flow as an imminent threat to national stability and

state sovereignty. The Western Consensus, on the other hand, extols the virtues of an open, free, interoperable Internet blind to geographical borders. Both camps are acting as international norm-entrepreneurs, and they are not in alignment.

Given that the international community is in the early stages of cybersecurity norm emergence, now is the time for the United States to demonstrate strong leadership and vision. The concepts of *Internet sovereignty* and *information security* run counter to the democratic principles espoused by the United States and other Cyber-Liberalist countries. Therefore, the United States cannot endorse the proposed Code of Conduct for information security and remain credible as a leader of the Western Consensus. Failure on the part of the United States to counter revisionist narratives vis-à-vis norms governing international cybersecurity places it at a strategic disadvantage. A collaborative approach is essential to risk reduction and international cooperation in the virtual domain. Ultimately, the United States must primarily utilize soft power to lead an international effort and develop a normative cybersecurity policy in order to cultivate a multi-stakeholder framework for the cyber domain.

Team Biographies

Major Amanda Current, USA, is currently serving in the J25 at USCYBERCOM in Fort Meade, Maryland. She was commissioned through ROTC at Truman State University in 2002. MAJ Current earned a BS in Psychology from Truman State University in 2002 and an MS in Strategic Intelligence from the National Intelligence University in 2014. Prior to her current assignment, MAJ Current served as the Brigade Chief of Operations for the 159th Combat Aviation Brigade in Fort Campbell, Kentucky.

Lieutenant Colonel Bryan Redash, USAF, is currently assigned to the National Reconnaissance Office (NRO). He was commissioned through ROTC at Boston University in 1997. Lt Col Redash earned at BA in Economics from Boston University in 1997 and an MS in Management from Troy State University in 2002. He has previously served in a variety of assignments both in the United States and abroad.

[1] Rex Hughes, "A Treaty for Cyberspace," *International Affairs* (Royal Institute of International Affairs 1944) 86, no. 2 (March 2010): 527, accessed October 22, 2014, http://www.jstor.org/stable/40664079.
[2] Joseph S. Nye, "Cyber Power," Paper, (Cambridge, MA: Belfer Center for Science and International Affairs, Harvard University, May 2010), 15.
[3] Keir Giles, "Russia's Public Stance on Cyberspace Issues" Paper, 2012 4th International Conference on Cyber Conflict, (Tallinn, Estonia, 2012), 3. The nucleus of the revisionist camp is formed by member states of the Shanghai Cooperation Organization (SCO): China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan.
[4] Ibid., 2. Giles coined the phrase "Western Consensus" to describe a system of views which forms an unstated but tangible concurrence among the U.S., UK and other like-minded states.
[5] Tim Maurer, "Cyber Norm Emergence at the United Nations – An Analysis of the UN's Activities Regarding Cyber-security?" Discussion Paper 2011-11, (Cambridge, MA: Belfer Center for Science and International Affairs, Harvard Kennedy School, September 2011), 3. Maurer identifies "norm entrepreneurs" as any entity with sufficient resources to exert influence in an attempt to convince a critical mass of states to embrace new norms. In his research for the Belfer Center, Maurer examined activities among cybersecurity stakeholders at the United Nations, and concluded that the international community is presently in the first of three stages of the norm life cycle: norm emergence. The second and third stages of the norm life cycle are "norm cascade" and "norm internalization". These stages are not linear, and the cyclic process is not necessarily ever complete.
[6] United Nations, General Assembly, *Resolution 53/70 – Developments in the field of information and telecommunications in the context of international security*. A/RES/53/70. (New York: United Nations, January 4, 1999). *See also* Eneken Tikk-Ringas,

Developments in the Field of Information and Telecommunication in the Context of International Security: Work of the UN First Committee 1998-2012, (Geneva: ICT4Peace Publishing, 2012), 4. Three of the General Assembly's six committees have met to negotiate draft resolutions pertaining to cybersecurity: The First Committee (*Disarmament and International Security Committee)*, The Second Committee (*Economic and Financial Committee*), and The Third Committee (*Social, Humanitarian and Cultural Committee*).

[7] Maurer, "Cyber Norm Emergence at the United Nations," 22. The first Group consisted of governmental experts from 15 states: Belarus, Brazil, China, France, Germany, India, Jordan, Malaysia, Mali, Mexico, the Republic of Korea, the Russian Federation, South Africa, the United Kingdom of Great Britain and Northern Ireland, and the United States.

[8] Eneken Tikk-Ringas, *Developments in the Field of Information and Telecommunication in the Context of International Security: Work of the UN First Committee 1998-2012*, (Geneva: ICT4PeacePublishing, 2012), 7.

[9] United Nations, General Assembly, *Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security*. 69th sess., item 92 of the provisional agenda, A/69/112. (New York: United Nations, June 30, 2014). The concept of the GGE was proposed by Russia in 2001. The first GGE convened in 2004; the second in 2010. The third GGE consisted of 15 states: Argentina Australia, Belarus, Canada, China, Egypt, Estonia, France, Germany, India, Indonesia, Japan, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

[10] Mary McEvoy Manjikian, "From Global Village to Virtual Battlespace: The Colonizing of the Internet and the Extension of Realpolitik," *International Studies Quarterly*, 54 (2010): 382.

[11] Chris Demchak and Peter Dombrowski, "Rise of a Cybered Westphalian Age," *Strategic Studies Quarterly* (Spring 2011): 32-61. Until the 1648 Treaties of Münster and Osnabrück (understood together as the Peace of Westphalia), borders did not stabilize over many generations. The Peace of Westphalia not only ended the Thirty Years' War in Europe, but also heralded the emergence of the interstate system upon which modern International Relations theory was based. Leading states of the period helped codify and enforce a collectively agreed upon set of rules, institutions, and norms that governed interactions in international society.

[12] Johan Eriksson and Giampiero Giacomello, "The Information Revolution, Security, and International Relations: (IR) Relevant Theory?" *International Political Science Review* 27, no. 3 (July 2006): 225, accessed October 22, 2014, http://www.jstor.org/stable/20445054?origin=JSTOR-pdf.

[13] Manjikian, "From Global Village to Virtual Battlespace," 382.

[14] Ibid., 383.

[15] Giles, "Russia's Public Stance on Cyberspace Issues," 2.

[16] Manjikian, "From Global Village to Virtual Battlespace," 387.

[17] Ibid., 385.

[18] Manjikian, "From Global Village to Virtual Battlespace," 387.

[19] Demchak and Dombrowski, "Rise of a Cybered Westphalian Age," 35.

[20] Giles, "Russia's Public Stance on Cyberspace Issues," 3.

[21] Ibid., 4.

[22] Ibid., 3.

[23] Tom Gjelten, "SHADOW WARS: Debating Cyber 'Disarmament'" *World Affairs* 173, no. 4 (Nov, 2010): 3, accessed October 22, 2014, http://search.proquest.com/docview/822629043?accountid=10504.

[24] Nye, "Cyber Power," 15.

[25] Tim Stevens, "A Cyber War of Ideas? Deterrence and Norms in Cyberspace," *Contemporary Security Policy* 33, no. 1 (April 2012): 148-170, accessed October 22, 2014, http://dx.doi.org/10.1080/13523260. 2012.65957.

[26] Nye, "Cyber Power," 18.

[27] Joseph S. Nye, *Power in the Global Information Age: From Realism to Globalization* (New York: Routledge, 2004), 82.

[28] Manjikian, "From Global Village to Virtual Battlespace," 391.

[29] Open Source Center, Monitor 360, *Master Narratives Country Report: China*. March 2012, 2, accessed October 22, 2014, https://www.opensource.gov/portal/server.pt/gateway/ptargs_0_0_12162_1203_0_43/content/display/fbs20120403475741.

[30] Ibid., 2.

[31] Ibid., 3

[32] Open Source Center, Monitor 360, *Master Narratives Country Report: China*. March 2012, 2.

[33] U.S. Department of Energy, Lawrence Livermore National Laboratory, *More Than Meets the Eye:*

Clandestine Funding, Cutting-Edge Technology and China's Cyber Research & Development Program, by Kit Conklin and Benjamin Bahney, October 23, 2012, 4. *Informatization* is a Chinese concept of information dominance as a means to ensure sustained economic growth, compete globally in the ICT realm, and ensure national security.

[34] Leon Aron, 'Structure and Context in US-Russian Relations at the Outset of Barack Obama's Second Term," *Russian* Outlook (Winter 2013): 4, accessed October 27 2014, http://www.aei.org/files/2013/03/08-structure-and-context-in-usrussian-relations-at-the-outset-of-barack-obamas-second-term_172937861857.pdf.

[35] Open Source Center, Monitor 360, *Master Narratives Country Report: Russia,* 22.

[36] Keir Giles, "Information Troops"—a Russian Cyber Command?" Paper, 2011 3rd International Conference on Cyber Conflict, Tallinn, Estonia, 2011, 4.

[37] United Nations, General Assembly, A/69/112, 2.

[38] Ibid.

[39] Ibid.

[40] United Nations, General Assembly, A/69/112, 3.

[41] United Nations, General Assembly, *Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security*. 69th sess., item 92 of the provisional agenda, A/69/112/Add.1, (New York: United Nations, September 18, 2014), 2.

[42] United Nations, General Assembly, *Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security*. 68th sess., item 94 of the provisional agenda, A/68/98. (New York: United Nations, June 24, 2013), 2.

[43] United Nations, General Assembly, A/69/112/Add.1, 3.

[44] Ibid., 4.

[45] Ibid.

[46] Ibid., 6.

[47] United Nations, General Assembly, A/69/112/Add.1, 6.

[48] Ibid.

[49] Ibid., 3.

[50] United Nations, General Assembly, A/69/112, 12.

[51] United Nations, General Assembly, A/69/112, 13.

[52] Tikk-Ringas, *Developments in the Field of Information and Telecommunication in the Context of International Security*, 5.

[53] Michael N. Schmitt, *Tallinn Manual on the International Law Applicable to Cyber Warfare* (New York: Cambridge University Press, 2013). The NATO CCD COE is an international military organization based in Tallinn, Estonia and accredited in 2008 by the NATO as a 'Centre of Excellence.' It is not part of the NATO's command or force structure, nor is it funded by the NATO. It is part of a wider framework supporting the NATO Command Arrangements. Its present sponsoring nations are Estonia, Germany, Hungary, Italy, Latvia, Lithuania, The Netherlands, Poland, Slovakia, Spain, and the United States. Notably, the *Tallinn Manual* does not carry the force of international law, nor does it have the authority of an international treaty or agreement.

[54] Schmitt, *Tallinn Manual*, 13. Just War theory has evolved through Roman and Catholic Church doctrine into several important bodies of international jurisprudence. *Jus ad bellum* refers to the morality (justice) in going to war, and *jus in bello* refers to morality (justice) in war. *Jus ad bellum* has largely been supplanted by the 1945 Charter of the United Nations and is sometimes known as the Law of Conflict Management. *Jus in bello* provides the moral basis for the Law of Armed Conflict (LOAC) and the supporting Rules of Engagement (ROE).

[55] Michael N. Schmitt, email message to authors, October 30, 2014. Michael Schmitt is a Senior Fellow at the NATO Cooperative Cyber Defence Centre of Excellence, and the editor of the *Tallinn Manual*. Mr. Schmitt is also the Director of the Stockton Center for the Study of International Law at the U.S. Naval War College, a Professor of Public International Law at Exeter University (UK), and a Fellow at the Harvard Law School Program on International Law and Armed Conflict.

[56] Ibid.

[57] Ibid.

[58] Rain Liivoja and Time McCaromack, "Law in the Virtual Battlespace: The Tallinn Manual and the *Jus in Bello," Yearbook of International Humanitarian Law* (2012): 49.

[59] Demchak and Dombrowski, "Rise of a Cybered Westphalian Age," 56.

[60] Ibid., 34.

[61] Manjikian, "From Global Village to Virtual Battlespace," 386.

The Challenging Art of Modern Mission Command

By Major Johannes Castro, USA, Major Adam Knox, USAF, and Major Scott Worth, USMC

Throughout history the ability to command and control military forces has been a critical component of success. In our military today, this requirement is made more difficult and complex by a myriad of factors including evolving technology, diversity of forces, geographical separation, and dynamic threats.

Our current joint doctrine states that mission command is the "preferred method of exercising command and control."[1] Inherent in this method are several key elements which constitute the "art" of the subject as reflected in the following joint doctrinal definition of mission command (Editor's note: italics added for emphasis):

> Conduct of military operations through decentralized execution based upon mission-type orders. It *empowers individuals* to exercise judgment in how they carry out their assigned tasks and it exploits the human element…*emphasizing trust*, force of will, *initiative*, *judgment, and creativity*. Successful mission command demands that…leaders at all echelons exercise disciplined initiative and… delegate decisions to subordinates wherever possible, which minimizes detailed control and empowers subordinates' initiative to make decisions. Essential to mission command is the thorough understanding of the commander's intent at every level of command and a *command climate of mutual trust and understanding*.[2]

At the core of mission command is the human element. Subordinates interpret and implement a commander's intent while providing timely information and recommendations up the chain of command to inform the future decisions required for successful mission execution. The execution of mission command relies on junior leaders who must be professionally developed in order to attain the expertise and skills required to fulfill this vital element of mission command. Due in part to the high demands of recent conflicts, the military climate has changed and this professional development has eroded. In short, senior leadership is failing to provide junior leaders with the professional development they deserve.

To implement the art of mission command effectively, today's military officers must return to the roots of military service and explore the foundations of effective leadership. The risk-averse nature of our military culture must change, micromanagement at all levels must be discouraged, and the professional development of junior leaders must be enhanced beyond mere practical experience.

Risk Aversion

One of the largest detractors from the mission command concept are the risk averse characteristics of many of today's leaders. Risk aversion is demonstrated in today's military through a flawed performance evaluation system and a culture of zero-tolerance. One factor contributing to this avoidance of risk is the speed at which any missteps are brought to the attention of the public through the sensationalism of the media.

Risk aversion is evident in today's military leaders through the performance evaluation systems of the respective services in general, and more specifically, their over inflation. In "Failure to Lead," Brian

McAllister Flinn comments on Thomas Ricks' book, *The Generals*, and contends that "Army wartime command could be improved by addressing the systemic problem of failing to identify — and require for promotion — those innate qualities [George] Marshall esteemed [common sense, professional knowledge, physical fitness and stamina, loyalty, determination, optimism, and the ability to work within a group]."[3]

In her master's thesis for the Naval Postgraduate School, USAF Maj. Stephane Wolfgeher, describes the evaluation systems of all the services and takes a deeper look at the process for inflammatory characteristics. She concludes that all services, to one degree or another, engage in inflation of evaluations. The USMC system is most immune to undue influence due to many of its objective criteria and the USAF evaluation system has the highest levels of inflation due to its pure essay format.[4] Despite how commanders communicate their subordinates' performance to central promotion boards, the result is a zero-defect culture. Service members know that one mistake has the very real potential to torpedo one's career. Raters know this as well and are less likely to document substandard performance. Many have suggested adopting an appraisal system from the corporate world.

An article in the *Armed Forces Journal* describes the positive attributes of General Electric's leader development model and suggests two possible changes to the current system. Young talent is identified early and cultivated through "fast-track programs, and exposed to different regions and opportunities, and senior leaders determine if continued promotion and reward is merited. People are evaluated based on organizational performance and peer group comparisons, and in particular, during temporary service at 'the next level'.

Top talent with ambition and vision is promoted to the executive level within 10 years. Also, other highly talented people are allowed to remain in jobs they enjoy and are productive in."[5] One recommendation that is seen throughout the research is the concept of a 360-degree review. This non-attribution type feedback allows leaders to benefit from the comments of peers and subordinates through non-permanent constructive criticism. The Army currently has a form of 360 evaluation, however; many question its effectiveness and its ability to not be distorted by the officer that is being evaluated. Without change, however, "performance evaluations will continue to emphasize a zero-defect mentality."[6]

Additionally, today's military commanders hide behind a policy of zero-tolerance. The effects of this zero-defect culture are evident in the performance evaluation system, but it is degrading officers' decision-making and leadership abilities. Flinn states, "both senior and junior officers have learned to avoid risk, since mediocre performance will probably not hurt one's career, but making a mistake may destroy it."[7] Improvement is impossible without initiative and the associated risk. Without innovation, new discoveries are non-existent, new efficiencies will never be reached, and cost savings will not be achieved; it will be impossible to do more with less. Today's military is stagnating because the price of failure—or even just partial success—is just too great. Senior leaders have forgotten the difference between a failure of a well-intended action and irresponsible behavior. "Success may not result from absolute perfection, but rather from experimentation, learning from failure, and the implementation of logical measures to manage risk. Such techniques should be encouraged rather than inadvertently constrained, as the [military] strives to find the right balance between the

instilment of accountability and the encouragement of sensible risk taking."[8]

Another major contributing factor to rick aversion is the speed at which mistakes rise to the attention and judgment of the general public. The potential consequences of mistakes have been described above, but if that was not bad enough, the alarming speed at which senior leadership becomes aware of these incidents can be enough to paralyze commanders at all levels. "The explosion of media outlets and inexperienced journalists are major causes of negligent reporting. Mushrooming media competition has spawned lower professionalism among reporters and news people…The Internet also presents expanding opportunities for novice media personnel to reach mass audiences."[9] This combination of increased media competition, novice reporting, and the instant and irreversible nature of social media can be fatal to innovation and creativity in military operations and commanders' careers.

It is often forgotten that there are substantial differences between the general public and the military. The military is trained to accept and mitigate risk, but still undertake operations that could result in the loss of life. The general public is not trained or prepared to take this risk and is thus more risk averse. The instant reporting and sensationalism of the media unfairly transfers the risk avoiding nature of the public onto an institution that is trained to analyze, mitigate, and, more importantly, deal with the consequences of failure. A remedy for this would require an intensive public affairs campaign aimed at the American public. The military must engage the media in an effort to educate them to the role of the military as an instrument of national power. Senior leadership is often accused of having their 'heads in the sand' and only engaging the media in a reactive

posture. "Their reluctance appears to be a by-product of the zero-defects mentality plaguing today's [military]. Real or imagined, this perception exists among the [military's] ranks and seriously inhibits initiative and risk-taking. Engaging the media no doubt involves both risk and initiative," but success means more popular support for the military and more freedom of maneuver to use innovation and ingenuity to deal with the limited resources of this constrained fiscal environment.[10]

Risk Averse Micromanagement

The risk-averse nature of civilian and military leaders also leads to micromanagement. Starting at the top, our civilian leaders have distanced themselves from military values in the recent past, making them unlikely to be accepting of military casualties.[11] This thought process has filtered its way down through the military chain of command, manifesting itself in micromanagement. Commanders from the platoon to the battalion-level are now scrutinized to ensure that each of their plans or exercises have Operational Risk Management (ORM) worksheets down to the level of a soldier or Marine getting a snakebite in the field and ways to mitigate that risk. While understanding that there are risks inherent to the military line of work, one must ask, "Do I need to ensure that my Colonel knows that there are snakes in the field that could bite me, and that I understand that threat?" In fact, under the premise of mission command and decentralized operations, shouldn't senior leaders be more trusting of their subordinate leaders and their senior enlisted advisors; at least to the point of understanding that their experience may lead to them quickly mentioning general risks and threats to those in their charge? Lastly, how much manpower is wasted on ORM worksheets and other risk-related documents that could

be spent on the important parts of planning, or even training junior military members? The micromanagement that manifests itself in ORM worksheets and extensive briefs on hazards in an environment completely contradict the nature of the very people our services have recruited. By nature, military services target and attract risk-taking people. It is not until they enter the military that they are targeted with such risk-averse micromanagement techniques as excessive paperwork or lengthy, monotonous, common-sense briefs.

The requirement for "safety briefs" are another form of micromanagement due to risk aversion. Instead of holding leaders accountable for the ability to lead and mentor subordinates, senior leaders require a multitude of briefs aimed at everything from motorcycle safety to sexually transmitted diseases. Motorcycle safety has become the epitome of risk-averse micromanagement, specifically in the Marine Corps where every battalion must have a "motorcycle club," which is permitted to go on a club motorcycle ride at least one Friday a month. Not only are commanders micromanaged to develop unit-level clubs for fear of a military member getting hurt, they must give them man-hours to conduct club events, wasting even more time and money. The answer to eliminating micromanagement from risk-aversion is in the hands of our senior military leadership. Instead of bringing the military closer to the civilian cultural aversion to risk, our general and flag officers must effectively convey the inherent risks of military service to our civilian leadership and the general population. This is not to say that we do not want to protect our military members from harm or educate them on certain dangers inherent in military life. The American public holds its military in high regard because of the inherent risk to life that is incurred by joining the ranks, ensuring that in some regard they already

understand and only need to have their thinking reinforced by career military professionals using their positions to strategically communicate with the general population.

Technological Micromanagement

Yet another way micromanagement is threatening the institution of a mission-command climate in our military is through technological innovation. Many of these innovations are centered on command and control (C2) software applications in military networks and intelligence, surveillance, and reconnaissance (ISR) assets such as unmanned aircraft systems (UAS) or drones. The intended impact of these systems are improved command and control, however, commanders today use these systems to micromanage their subordinates in a way that would be unfathomable to military leaders of the past.

From the beginning of warfare and into the 20th century, military leaders, specifically generals, were present with their troops on the front lines of battle. Many times, these leaders would be fighting alongside their troops, literally leading the charge, or, at the very least, swinging a sword next to their men. As militaries grew larger and increased the responsibility of generals to manage at a much higher level, technology also advanced and made it possible for these leaders to step away from the front lines and into command posts several miles away. In the 21st century, militaries are experiencing an even faster rate of technological advancement. Fourteen years of warfare in Iraq and Afghanistan alone has witnessed a startling advance in C2 and ISR assets, along with weaponry. To compound matters, the growth of social media and expansion of access to the internet has given the U.S, and its adversaries, another front in which to wage war. All of this has two effects: 1) increased

distance from which a senior leader can gain understanding and command a battle, even at the tactical level, and 2) rapid, unfiltered information sharing from the battlefield to the rest of the world. In terms of micromanagement both of these effects are detrimental to mission command.

The use of systems such as Global Command and Control System (GCCS), Command Post of the Future (CPoF), Command and Control Personal Computer (C2PC), and Blue Force Tracker (BFT) have given senior military leaders the ability to track their subordinate units in near-real time across the battlefield from the relative comfort of a much more distant command post, possibly even continents away if the IT network permitted. Coupled with new ISR assets, such as Predator and Scan Eagles drones transmitting live video feeds to the same command posts, senior leaders can now start to develop what they believe is a holistic view of the distant battlefield.[12] The premise behind mission command is that the mission-type orders given to the subordinate commanders would give them a certain amount of autonomy, latitude, and flexibility on the battlefield in order to carry out their mission. If an obstacle was introduced or situations on the ground had changed, a commander may opt to change his plan in order to accomplish the original end-state. Mission command in the environment explained above is almost impossible. The distance that military leaders have strayed from the battlefield in centuries past has been eliminated through technology, ensuring that generals and senior civilian officials can all become part of the battle without actually being on the ground. In *Tactical Generals: Leaders, Technology, and the Perils,* Peter Singer recounts a story of a general officer who was quite proud of his involvement in a battle, believing he had a greater understanding of the situation and could direct which size bombs to drop and when to drop them in real time due to his view from the command post. The problem with this story is that his decisions skipped multiple layers of commanders, action officers, and troops, micromanaging them to the point of rendering them useless in the mission. With ground units, an even greater problem occurs when senior leaders decide that they understand the battle better than the commander on the ground due to their views of icons and videos on separate screens in their command post. What these senior leaders do not take into account is what they cannot see; the 3D world of a soldier or Marine looks quite different from the one thousand foot view of a Predator feed or the lagging blue icon on a C2 display. Another question comes into play here as well: if the senior leaders are focused on the tactical view of a single portion of the battle, who is focused on the operational and strategic views? Micromanagement in this case truly impacts strategic thought. As subordinate commanders are becoming more and more micromanaged on the battlefield (and let us remember, those being micromanaged can be O-5 and O-6-level commanders with 18-26 years of military experience), the "mother-may-I syndrome" becomes prevalent.[13] This syndrome develops due to the micromanagement of subordinates becoming so severe that they will not attempt to make a decision to act on mission-type orders without asking permission to higher headquarters first; i.e. those watching the battle from the monitors in their command post. Lastly, the development of the "mother-may-I syndrome" and severe micromanagement on the battlefield due to technology is breeding a culture of micromanagement among our junior officers. From being micromanaged, our junior leaders are learning through experience and example a way to lead which is completely contradictory to mission

command. These junior leaders will then continue these practices in the future.

Social media and the rise of global internet access also encourages micromanagement. As Marine General Charles Krulak invoked the thought of the "strategic corporal" when lamenting about the ability of junior military members to affect the battlefield due to technological advances, the application of the "strategic private" pertains to the age of global internet access and social media. In this instance, the reference is to the speed at which a video or picture taken on the battlefield can be uploaded and shared around the world in a matter of seconds, changing the perception of civilian populations and creating perspective enemies. One can think of a few examples, including the current videos of torture and beheadings taken by ISIS (on the side of our adversaries) and of Marines urinating on dead Taliban fighters. The prospect of the effect of these instances occurring again in the future puts into motion the very fearful micromanagement of our civilian leaders that enacts the entire process of micromanagement down the chain of command. For if public opinion is threatened, senior leaders seem intent on reacting to situations and proving they will change them rather than explaining the situation and telling the 'why' behind the action.

Peter Singer invokes "enlightened control" as a way to combat micromanagement on today's technologically advanced battlefield.[14] His explanation of this is the understanding by senior leaders of when they should inject themselves into a process and when they should let their subordinates carry out the mission assigned to them. This is definitely true, and must be coupled with continued education on the mission command culture at all levels. Professional development in regards to mission command does occur

now, and should be improved upon in the future, but the actions of our senior leaders must be consistent with the education we are providing to our junior leaders.

De-emphasized Professional Development

Another area which presents a significant challenge to the art of modern mission command is the de-emphasis of professional development specifically in the military officer corps. Officer development is typically thought of only as professional military education (PME) but what's often neglected is the more enduring, holistic, individual officer development. It's the latter component that's the focus of this discussion. This individual development is manifest in three areas: mentoring, counseling, and collective training. This discussion will describe these challenges and offer some proposed solutions for future improvement.

In 2013, "the Center for Army Leadership's annual assessment of attitudes and perceptions on leader development (CASAL) identified "Develops Others" as the lowest-rated leader competency for the fifth year in a row. Just over half of Army leaders (59 percent) were regarded as effective at developing others by their subordinates. The CASAL further revealed that one fourth (22 to 26 percent) of those surveyed indicated their units placed a "low" or "very low" priority on leader development activities."[15] Though these statistics are representative of a single service, it underscores the impact of the high demand levied on the military by recent conflicts and budget constraints. This includes a heavy toll specifically on a generation of officers who have come to expect professional development from the confines of a classroom or from self-derived on-the-job training through a multitude of duty assignments. Critical components such

as mentoring have become casualties of this new environment.

Mentoring is important to the future of our military because it's "the vehicle through which the next generation of leaders and followers are molded."[16] Even though mentoring should ideally occur throughout an officer's career, it's most vital to junior officers who often lack the experience, skills, and resiliency required to manage the professional and personal challenges associated with a career in the military. The mentoring of a junior officer is important in that it also "establishes trust and promotes learning" between the mentor and mentee.[17] A myriad of reasons can be noted for the decline in mentoring but insufficient time and a lack of priority by senior leaders have been noted as primary reasons.[18][19] Some officers might be reluctant to serve as mentors if they lack the skills or confidence especially if they've never had one themselves.

Revitalizing officer mentoring could remedy several problems which remain a challenge for each service. First, one cause of toxic leadership is the inadequate development of junior leaders. According to Mueller, "toxic leaders are a product of a lack of training and mentoring from superiors."[20] It would stand to reason that early mentoring could identify and stave off those traits in junior officers that could later manifest themselves as what we consider toxic leadership. Second, enhanced mentoring could improve officer retention. According to a report by Lieutenant General William M. Steele (Commander, U.S. Army Combined Arms Center) to the U.S. Army Chief of Staff, "mentoring and retention are related…younger officers felt a lack of commensurate commitment from the Army to them."[21] This problem isn't unique to any one service and may be why many of our best and brightest junior officers leave the military after their initial term of service to pursue better opportunities in the private sector. Improved officer retention rates would benefit the government by increasing the return on investment for training, security clearances, and other required new officer expenditures. Third, Frank C. Budd notes that mentoring could help to ease the higher rates of "divorce…occupational… [and] posttraumatic stress disorder levels" which continue to impact the military after years of conflict.[22]

Improving officer mentoring is vital for the development of our future leaders but requires several key changes to the status quo. First, a renewed emphasis on the importance of mentoring by senior service leaders is needed. This would help prioritize time and effort on developing our human capital. Second, service doctrine for mentoring must be developed to standardize basic expectations and establish guidelines for mentoring. A joint definition of mentoring would also eliminate confusion in evaluations. Finally, education and training programs for mentoring must be developed, which begin at the basic service school level to better prepare new officers for their first assignment with the confidence necessary to succeed.[23] Another component of mission command that's been in decline is counseling.

Counseling, or performance feedback, is another component of officer professional development which has eroded over the years. For the purpose of this discussion, a few important distinctions need to be made upfront. Counseling is typically conducted by a supervisor, not a mentor. Supervisors are focused on specific duty performance and may frequently change out while a mentor considers long-term career progression and is typically a more enduring type of a relationship. A supervisor is "typically more interested in training and perhaps coaching a subordinate."[24] A supervisor and mentor may be one in the

same but that is certainly not the norm. Regardless, we need to consider why our counseling is inadequate and how it can be improved to further enhance officer professional development.

When done correctly, regular counseling can be a valuable way to enhance officer professional development by communicating expectations, providing performance assessment, training, and coaching. The reality is that, too often, counseling is an afterthought, if it happens at all, due to the familiar constraints of limited time and conflicted priorities. Typically when it does occur, it doesn't extend beyond either the initial counseling or performance feedback triggered by an evaluation report. Though some services may place more emphasis than others on counseling, officers are typically not the priority and are simply expected to figure things out. Joint organizations experience the additional complication of unfamiliar sister service forms and expected protocols for completion. This places an additional time requirement on the counselor to learn these standards or risk embarrassment. The absence of effective counseling within an organization creates confusion especially among junior officers who may be lacking the experience and skills that previous duties may afford others. In addition, junior officers may lack the confidence to ask for clear direction and may be left to guess as to their supervisor's intent and expectations.

Counseling must be a leadership priority in any organization striving for sincere improvement. Much like with mentoring, the requisite time, resources, and genuine effort must be dedicated by leaders in order to meaningfully convey that their subordinates are valuable assets worthy of professional development. Improved retention and unit morale will be the barometers of success.

Mentoring and counseling play vital parts in officer professional development but they're limited to the individual officer and neglect the benefits that collective or group training has to offer. As such, collective methods should be considered to prepare leaders for increased future responsibilities and to refine critical skills. These additional methods can be incorporated at any echelon or organizational level and may be customized by leaders to benefit their officers as they strive to improve their organizational culture. For this discussion, we'll consider future leadership preparedness, collective professional development, and the sharing of lessons learned.

In the military, we know that people are promoted based on potential for future responsibility not on past accomplishment. Senior leaders should strive to constantly seek ways to prepare junior leaders for these future responsibilities. Typically we consider this to be a one level up focus but Feltey and Madden contend, "this requires an institutional and career-long norm of continuous leader development."[25] Commanders and senior leaders must consider this much broader approach for the development of their junior officers rather than what they merely need for their next assignment or subsequent rank. Especially in the current fiscally constrained environment, this must include a good understanding of the individual and collective strengths and weaknesses so that scarce resources can best be optimized to meet these developmental needs. Additional collective training should also be considered.

Collective professional development should be leveraged to improve officer training and resource utilization. These events not only provide valuable leadership skills and build confidence but also improve morale and cohesion. At the tactical level, junior officers may benefit from training on

command supply programs, UCMJ review, admin reporting, or anything else pertinent to the service or unit. Other organizations may benefit from staff rides, planning off-sites, or seminars to derive similar benefits. Commanders and senior leaders may also benefit from the group dialogue or opportunity to lead these events. The sharing of lessons learned may be an additional way of developing officers.

Senior leaders can serve as a wealth of knowledge for junior officers. While war stories may be entertaining, a wealth of information can be obtained from leaders willing to share the lessons that they've learned throughout their career. Discussing mistakes or past errors in judgment can be a humbling experience but can add a human element to leadership while yielding valuable insight into decision making and resilience, especially when discussing what was learned from the mistake and how it shaped them for future leadership success.

Conclusion

History remembers only our wars' commanders. Their performance in the face of adverse conditions, immense violence, and danger follow them through the generations to come. Strategic military leaders were once junior officers and required proper development in order to execute mission command effectively to protect the nation's vital interests. The concept of mission command is nothing new to military operations. While the burden of executing mission command falls on the shoulders of the junior tactical level officers, senior leadership must alter the environment in which they operate and give these officers the tools they need to succeed. Senior military leaders must change the risk-averse nature of the military culture by installing an effective form of performance evaluation and giving young leaders the latitude to try new techniques and innovate. The concept

of "enlightened control," and the understanding of how to use technology for command and control appropriately, must be further developed, taught, and fostered among senior leaders in order to dissuade micromanagement at all levels. Successful officer development requires effective mentoring, counseling, and collective training in order to overcome the challenges of mission command. Finally, our senior military leaders must develop an information campaign to inform and educate our civilian leadership, the media, and the American people, on some of the intricacies and inherent risks of military culture.

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Notes

[1] U.S. Joint Chiefs of Staff. 2013. "Doctrine for the Armed Forces of the United States." *Joint Publication 1.* Washington D.C.: U.S. Joint Chiefs of Staff, March 25, p. V-15.

[2] Ibid, p. V-15

[3] Brian McAllister Flinn, "Failure to Lead," *Wilson Quarterly*, accessed February 11, 2015, http://wilsonquarterly.com/stories/failure-to-lead/.

[4] Stephane Wolfgeher, "Inflation of USAF Officer Performance Reports: Analyzing the Organizational Environment," (master's thesis, Naval Postgraduate School, 2009), p. 30-58.

[5] Arnold, Brig Mark C., "Don't Promote Mediocrity," *Armed Forces Journal*, last modified May 1, 2012, http://www.armedforcesjournal.com/dont-promote-mediocrity/.

[6] James Joyner, "Why America's Best Officers Are Leaving," *Outside the Beltway,* last modified January 6, 2011, http://www.outsidethebeltway.com/why-americas-best-officers-are-leaving/.

[7] Flinn, "Failure to Lead."

[8] Brendan Gallagher, "Managing Risk in Today's Army," *Military Review*, Jan-Feb 2014, p. 96.

[9] James Lovejoy, "Improving Media Relations," *Military Review,* Jan-Feb 2002, p. 50.

[10] Ibid, p. 51.

[11] Furedi, Frank. "Afghanistan: The Dangers of a Risk-Averse War." Afghanistan: The Dangers of a Risk-averse War. September 7, 2009. Accessed February 18, 2015. http://www.spiked-online.com/newsite/article/7349#.VOTljDaKDIV.

[12] Singer, Peter. "Tactical Generals: Leaders, Technology, and the Perils." The Brookings Institution. July 7, 2009. Accessed February 18, 2015. http://www.brookings.edu/research/articles/2009/07/summer-military-singer

[13] Ibid

[14] Ibid

[15] Crissman, Douglas C. 2013. "Improving the Leader Development Experience in Army Units." *Military Review*, p. 6.

[16] Lackey, James, and Gene C. Kamena. 2010. "Mentoring: Finding our way to the future." *Fires* (United States Army Field Artillery Association), p. 22

[17] Ozier, Davis, Christopher Lareau, and Bret P. Van Poppel. 2006. "Agile Birds: Junior Officer Professional Development During Training Hold Periods." *Armor,* p. 35.

[18] Ibid, p. 23

[19] Mueller, Robert A. 2012. "Leadership in the U.S. Army: A Qualitative Exploratory Case Study Of The Effects Toxic Leadership Has On The Morale And Welfare Of Soldiers." Ph.D. Dissertation, School of Business and Technology, Capella University, Ann Arbor, Minnesota, p. 268

[20] Ibid, p. 224

[21] Captain Kopser, G. Joseph, U.S. Army. 2002. "Mentoring in the Military: Not Everybody Gets It." *Military Review,* p 40.

[22] Budd, Frank C. 2007. "Mentoring In The U.S. Air Force: A Cornerstone For Success Through Organizational Transformation." *Performance Improvement,* p. 16.

[23] Captain Anthes, Erik J. 2012. "Completing the Chain: Mentorship Needed in Officer Basic Courses." *Army Sustainment,* p. 23

[24] Lackey, James, and Gene C. Kamena. 2010. "Mentoring: Finding our way to the future." *Fires* (United States Army Field Artillery Association), p. 23

[25] LTC Feltey, Thomas M, and CPT John F. Madden. 2014. "The Challenge of Mission Command." *Military Review*, p.4.

The Falklands Campaign: A Failure in Modern Joint Common Operating Precepts

By Lieutenant Colonel Phillip Borders, USA, Major Kelly Montier, USAF, and Lieutenant Colonel Michael Nakonieczny, USMC

The Falkland Islands campaign started on April 2, 1982 with the Argentine invasion and subsequent occupation of the Falkland Islands. The roots of the campaign stemmed from the contested rightful ownership of the islands between Argentina and the United Kingdom dating back to the 17th Century. After decades of diplomatic action aimed at a negotiated settlement, Argentina resorted to the use of force and invaded the islands. [1] The resulting battle for the Falklands represents the largest integrated land, sea, and air campaign since World War II. Although U.S. military schools often highlight the British ingenuity, expeditionary capability, and physical prowess of the British infantrymen as the ultimate key to their victory, what is often overlooked are the mistakes and lost opportunities of the Argentines. Despite the success of the initial Argentine invasion of the Falklands, they were ultimately defeated due to their failure to apply the Joint Common Operating Precepts outlined in Joint Publication 3-0; in particular, they failed to exploit *unity of effort*, *influence domestic and international audiences*, or *manage transitions over time and space*.

The Argentine Invasion and British Counter Attack

In December of 1981, the Argentine government underwent its second regime change in less than a year when General Leopoldo Galtieri assumed the role of president. Although he occupied the position, the real power rested with the three-man military junta of which Galtieri was already a member. [2] The newly formed Argentine government conducted the invasion of the Falklands to stifle internal political unrest by uniting the nation in a struggle designed to evoke national pride. [3] The Argentine invasion plan called for 150 Marine Commandos to conduct a raid at Mullet Creek, neutralize the 68 Royal Marines there, arrest the Royal Governor, and set the conditions for the invasion fleet to enter Port Stanley Harbor. [4] Although unforeseen events dictated changes to the original plans, Argentine Commandos adapted successfully and the Governor, Rex Hunt, surrendered a short four hours after the Argentines first landed. [5]

After their rapid success, the Argentines rotated the initial, professionally trained Marine Commandos back to Argentina to counter potential domestic unrest and to reinforce the border with Chile, where a long-standing dispute existed. Three brigades of Argentine Army conscripts replaced the professional and well-trained Argentine Marines on the ground. The majority of these troops had not finished initial training and were individually inserted into units to achieve acceptable combat strength. [6] The Argentine occupation force now tasked with the defense the island consisted of 11,000 ground troops, an aged, but well-balanced naval fleet, comprised of two separate task forces and three submarines, and a formidable air force of roughly 220 fighter planes. [7] The task of the air force and navy was to intercept any British vessels sent to reclaim the islands.

Three days after the initial Argentine invasion, the British launched their largest naval task force since World Campaign II to retake the islands. [8] The Task Force consisted of more than 100 ships, six submarines, 42 Harriers, approximately 175 helicopters, and a landing forces comprised of Royal Marine Commandos and

paratroopers.[9] Despite being one of the best trained forces in the world, the British Task Force was largely unprepared for such an immediate deployment and the requirement to operate on lines of communications more than seven-thousand miles from their home shores.[10]

Once the British Task Force neared the Falklands in late April, the Argentines launched several air attacks against the British, but were unable to penetrate the protective screen put up by the Harriers and lost four aircraft. On 2 May, the British submarine *HMS Conqueror* sunk the Argentine warship *ARA Belgrano* and 368 Argentine sailors were lost. The sinking of the ship convinced the Argentines they could not compete with the British Navy and the entire Argentine Navy returned to port. However, the Argentine Air Force retaliated with a major air strike, subsequently sinking the *HMS Sheffield* and pushing the British Task Force and its local air superiority away from the islands. [11]

On 19 May, the full British Task Force arrived at the Falklands and commenced their amphibious landing. The Argentines launched uncoordinated air strikes against the British Navy, hitting five different warships but causing marginal damage, while losing ten of their own fighters. During the ensuing British invasion, casualties were high on both sides. The landing at Port San Carlos took the Argentines by surprise as they thought it impossible to land there. The Argentines then launched major air strikes against the British Fleet, sinking three and damaging four other ships, and eliminating the bulk of the British helicopters. The Argentines lost another 30 planes and would be unable to execute air operations on such a large scale for the rest of the conflict.[12]

The British launched attacks on Darwin and Goose Green in the early morning on 27 May. Despite losing two key commanders and being at a tactical disadvantage compared to the Argentines, the British succeeded in taking the locations in what turned out to be the last large-scale assault of the campaign.[13] From then on, all tactical actions encountered by the Royal Marines and paratroopers resembled the Battle of Goose Green: stiff initial Argentine resistance followed by a collapse of the Argentine soldiers once they were decisively engaged. On the night of 11 June, British forces launched a brigade-sized night attack against the heavily defended ring of high ground surrounding Port Stanley. The surrender of the Argentine forces on 14 June marked the end of the conflict.[14] The war lasted 74 days and resulted in the deaths of 225 British and 649 Argentine soldiers, sailors, and airmen. The Argentines surrendered 9,800 troops, all of which were repatriated to Argentina.[15]

Common Operating Precepts

- Inform domestic audiences and influence the perceptions and attitudes of key foreign audiences as an explicit and continuous operational requirement.
- Achieve and maintain unity of effort within the joint force and between the joint force and US Government, international, and other partners.
- Leverage the benefits of operating indirectly through partners when strategic and operational circumstances dictate or permit.
- Integrate joint capabilities to be complementary rather than merely additive.
- Avoid combining capabilities where doing so adds complexity without compensating advantage.
- Focus on operational objectives whose achievement suggests the broadest and most enduring results.
- Ensure freedom of action.
- Maintain operational and organizational flexibility.
- Plan for and manage operational transitions over time and space.
- Drive synergy to the lowest echelon at which it can be managed effectively.

Figure I-2. Common Operating Precepts

Figure 1. JP 3-0 Common Operating Precepts[16]

Common Operating Precepts

Although the Falklands campaign lasted only 74 days and, compared to other major campaigns, resulted in relatively few casualties. The campaign provides a doctrinal lens through which common operating precepts can be examined. The ten common operating precepts (see Figure 1) form the foundation of successful joint

operations. Although the Argentine military violated several of the common operating precepts throughout their planning and execution of the Falkland Islands campaign, three of these significantly contributed to their ultimate defeat. These are:

- ***Inform** domestic audiences **and influence** the perceptions and attitudes of key foreign audiences as an explicit and continuous operational requirement.*
- *Achieve and maintain **unity of effort** within the joint force and between the joint force and U.S. Government, international, and other partners.*
- *Plan and manage operational **transitions** over time and space.* [17]

Collectively, "these precepts flow logically from the broad challenges in the strategic environment to the specific conditions, circumstances, and influences in a [Joint Force Commander's] operational environment."[18]

Inform & Influence

Although Joint publication 3-0 did not expound on this precept, it did address the importance of communication strategies.[19] The U.S. Army Command and General Staff College's 2012 Campaign Planning Handbook associated this precept with inform and influence activities which it defines as "the integration of designated information-related capabilities in order to synchronize, themes, messages and actions with operations to inform [domestic] and global audiences, influence foreign audiences, and affect adversary and enemy decision making."[20] It further stresses that this precept requires active engagement that can lead to operational advantage when done well. Although a less obvious aspect of the Falkland Campaign than the other precepts, had Argentina been able to control the

external narrative as successfully as it did the internal narrative, it may have been able to change the international environment sufficiently to handicap the British effort while gaining material support for their own cause.

Argentina was somewhat competent at 'informing' its own population. The government had been carefully crafting and controlling the information flow to its populace for over a decade and used this to its advantage during the Falkland conflict.[21] After invading the Falklands, the Argentines extended their information practices there as well. They introduced televisions to the islands for which only Argentine programing was available and limited other forms of media to those that were friendly to the Argentine cause.[22] In Argentina, papers such as *La Nación* frequently pressed the themes of "British colonialism" and "British nostalgia for the lost empire" as they framed the conflict in their early reporting.[23] During the conflict, reporting minimized Argentine losses while emphasizing British losses, at times reporting the sinking of the same ships multiple times during the campaign. Post conflict, *La Nación* talks about terminating the battle, ceasefires, and the withdrawal from the Falkland Islands rather than expressing it as a surrender, downplaying the failure of the junta.[24]

The Argentines attempted to capitalize on British weaknesses with moderate success; the most notable being the sinking of the *ARA Belgrano*. Although the *ARA Belgrano* was a light cruiser, likely headed to engage the British fleet, the Argentines made much of the fact that it was outside the stated exclusion zone when the British sank it killing 360 "innocent" lives. The sinking of the ship was characterized as a treacherous act in the Argentine media.[25] Despite being a military victory for the British, the Argentine's ability to exploit "the premium that the international

community put on the appearance of avoiding escalation" turned the event into a minor political defeat for the British, particularly in Europe.[26]

The Argentines made their most significant mistake in failing to aggressively influence the international community even before the conflict turned violent. Although the Argentines drove the early timeline, they allowed the British message to reach the United Nations, European Economic Community (EEC) and even the Organization of American States before the Argentine message. This failure allowed the British to push a resolution condemning Argentina through the UN within hours of the invasion and shortly after convinced the EEC to place an arms embargo on Argentina.[27] The embargo severely degraded the Argentine defensive capabilities by limiting their ability to procure a resupply of Exocet missiles. From the view point of national-level strategic effects, the Royal Navy's most effective air defense system during the campaign were the successful sanctions and arms embargo imposed by Europe. The Argentines used Exocet missiles to sink the *HMS Sheffield* and *HMS Atlantic Conveyor*, but they had only five operational missiles. The Argentine Air Force could have inflicted considerably more damage on the British Fleet had the French not halted upgrades on the Argentines' remaining Exocets and delivery of another pending shipment. The potential destruction caused by those additional Exocets might have impacted the outcome of the conflict in favor of the Argentines.[28]

Unity of Effort

Unity of effort is defined as the "coordination and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization."[29] The stated

purpose in JP 3-0 is "to ensure unity of effort in the accomplishment of objectives."[30] Additionally, JP 3-0 expands on the importance of unity of effort, highlighting how it is used to accomplish a specific mission by establishing an atmosphere of trust and cooperation.[31]

During the planning and execution of the Falklands campaign, the Argentine military failed to leverage and integrate their joint force to achieve unity of effort. This failure was a result of service rivalry and institutional culture. At the time of the campaign, any Argentine joint training and planning that did exist was purely theoretical and did not translate into execution. "The [Argentine] armed forces were divided into watertight compartments, each service jealously guarding its rights and privileges. The services participation in the daily machinations of national politics merely aggravated the situation."[32]

Although there were multiple incidents in which the Argentines violated the precept of unity of effort, the most catastrophic incident is highlighted in the naval and air engagements marking the initiation of hostilities. Given the vast distance between the Falklands and United Kingdom, the British initial strength was their fleet and their ability to project global power. Within the fleet, the troop transports which enabled the British to project power from the sea served as a vulnerability. If the Argentines were able to destroy the transports, or even deter them from approaching the Falklands, the chances for Argentine victory would have been assured.

Once the British Task Force neared the Falklands, the Argentines launched several air attacks against the British, none of which were supported by naval forces. Despite the bravery displayed by the Argentine pilots, their fighters were unable to penetrate the protective screen without the supporting effects of the navy. Similarly, in

a pure naval engagement on 2 May, the British submarine, *HMS Conqueror,* sunk the Argentine warship *ARA Belgrano,* thereby breaking the resolve of the Argentine Navy and forcing them from the battle.[33] In a post conflict interview, Argentine Rear Admiral Jorge Allare expressed how ill-prepared and uncoordinated the Argentine Navy was to fight the British and to support his air force counterpart. "None of our plans envisaged an all-out engagement between the two task forces; the difference in strength made that impossible. . . my orders were to carry out limited operations, taking advantage of favorable opportunities."[34] The departure of the Argentine Navy from the field of battle furthered the pre-existing divide between the services and doomed the Argentine Air Force to fight alone against the British Fleet.

Despite the lack of naval integration and forsaking the tenant of unity of effort, the Argentine Air Force was still able to retaliate with major air strikes. Through the use of fighters equipped with French Exocet missiles, the Argentine Air Force was successful in sinking the *HMS Sheffield.* Pressing their attack, the Argentine Air Force flew more than 300 sorties against the British Fleet resulting in the sinking of four British warships while damaging eight other vessels.[35] Intimidated by the power of the Exocet, the British Fleet commander backed his carrier force away from the islands and took any chance of British air superiority with him.[36] Given the vulnerability of the British Fleet to Argentine air strikes, the Argentines again failed to synchronize the naval and air effects against the British transports before the invasion began. Without naval forces pursuing the British Fleet, momentum was lost and the British landed their troops 17 days later.

The lack of unity of effort between the Argentine Navy and Air Force was further compounded by their failure to share even the most basic information. Examples of lack of information sharing included the navy failing to provide the air force with the radar direction expected by their pilots. Without this direction, Argentine pilots searched for targets of opportunity and wasted fuel in the process. Additionally, the air force failed to profit from the techniques developed by navy pilots of lobbing their bombs to provide them with enough airtime to fuse.[37] Without the proper fusing set, multiple Argentine air delivered munitions struck British vessels and passed through them, failing to detonate. These failures violated principles outlined in JP 3-0 which state, "Each component's mission should also create a complementary synergy with that of others. This enables the action of each component to enhance the capabilities and vulnerabilities of the other."[38]

Transitions

Joint Publication 3-0 states, "A transition marks a change of focus between phases or between ongoing operations and execution of a branch or sequel."[39] The common operating precept the Argentines failed to exploit is "plan for and manage operational transitions over time and space."[40] Despite the Argentines early operational successes they repeatedly failed at subsequent transitions negating any gained momentum. The Argentines failed to exploit opportunities between phases or manage transitions in ongoing operations at three distinct points: during the redeployment of forces prior to the British counter-attack, following successes in the air-sea battle, and during the final battle at Port Stanley on 14 June.[41]

The taking of Port Stanley by Argentine Marine Commandos and the subsequent surrender of the Royal Governor Rex Hunt resulted in overwhelming success. Subsequently, on 4 May, the Argentine

forces continued their success with the sinking of the *HMS Sheffield,* thereby blunting the British initial response. [42] The Argentines now held an opportunity to continue to exploit these successes as the British Fleet would take three weeks to cross the Atlantic. [43] Using the transition time between 2 April and 19 May, General Mendez recognized Port Stanley as key terrain, placing an overwhelming concentration of his troops around Port Stanley, positioning observation post throughout the island along likely avenues of approach. However, the Argentines created a weakness in their plan by rotating the Argentine Commandos from Port Stanley, back to Argentina to reinforce the Chilean border. The commandos were replaced with a larger but untrained conscript force exposing an Argentine vulnerability.[44] "In Argentina, the Argentine military were still so obsessed with the Chile factor that they turned Chile into a hypothetical enemy out of all proportion with reality."[45] Assuming success in the Falklands, the Argentine leadership prematurely transitioned to a threat on their border with Chile that did not exist.

Although the initial sea and naval campaign was discussed previously to highlight the lack of Argentine unity of effort, it also demonstrates the Argentine struggle with transition. This weakness was illustrated in the British counter attack commencing on 19 May. Once again, the Argentine forces exposed the ineffectiveness of the British Fleet's anti-aircraft defense by successfully sinking the four British ships *HMS Antelope, MV Atlantic Conveyor, MV Atlantic Coventry*, and *HMS Ardent*. [46] However, Argentine national command authority failed to see the focus of the battle was transitioning from British land forces at Port Stanley to its maritime forces, the British Fleet, in mid-May and they did not

bring the necessary maritime power to exploit the Argentine Air Force success. The lack of Argentine maritime vessels in the attack demonstrated a failure to effectively transition from air/ground to air/sea. The inability of the Argentines to foresee transitions resulted in a failure to achieve dominance across all three domains, allowing time and space for the British forces to gain a foothold on the eastern beach of the West Falkland Island.

Another example of the Argentine failure to transition was their failure to commit the reserve during the British attack on at Port Stanley 11-14 June. General Mendez's defensive plan hinged on mobilizing his formidable helicopter reserve to launch a counter-attack. The plan heavily relied on the accurate reporting, the resolve of the defensive positions to hold in the face of British attacks, and the initiative of the Argentine counter-attack commander.[47] During the British attack, the main effort stalled subjecting the British infantry to direct and indirect concentrated fires. Despite the tactical advantage and the commitment of their helicopter reserve as planned, the Argentine forces never effectively transitioned to their branch plan to blunt the British counter-attack. Nor did the Argentine air and naval forces intercept any British forces attempting to relieve the beleaguered British. Once again, the Argentine branch plan was never executed, displaying a lack of ability to manage this critical transition point within the campaign[48]

Conclusion

Militarily, the Falkland Islands campaign remains the largest-naval battle between modern forces since the Second World War. As such, the conflict offers many lessons learned to the Joint Officer. For example, the United States Marine Corps currently uses the Falklands

Campaign as a case study at the Expeditionary Warfare School and at their Commanders' Course to educate attendees on "amphibious lessons relearned." Among other lessons learned, the Marine Corps uses the Falklands campaign to illustrate the importance of amphibious / expeditionary readiness, adaptability, and the decisive advantage provided by fit, hardened men, prepared to close with and destroy the enemy.[49] Although these lessons are undoubtedly true, they only tell one side of the story and fail to account for the Argentines' actions.

The Argentines were successful in their capture of and subsequent planning for the defense of the Falklands but they failed to hold the islands due to their inability to adhere to the common operating precepts outlined in JP 3-0. Specifically, the Argentines failed to influence the international community, achieve unity of effort, and manage transitions. As recently stated by General Dempsey, "…the strength of [the] Joint Force has always been its ability to combine unique Service capabilities to project decisive military force." [50] The Argentines failed to apply these strengths and therefore failed to achieve victory.

Team Biographies

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[1] Max Hastings and Simon Jenkins, *The Battle for the Falklands* (New York: W. W. Norton & Company, Inc., 1984), 5.
[2] Hastings and Jenkins, *The Battle for the Falklands,* 43.
[3] Hastings and Jenkins, *The Battle for the Falklands,* 65.
[4] Hastings and Jenkins, *The Battle for the Falklands,* 73.
[5] Hastings and Jenkins, *The Battle for the Falklands,* 73-74; Jorge O. Laucirica, "Lessons from Failure: The Malvinas Conflict" (*Seton Hall Journal of*

Diplomacy and International Relations, Summer/Fall 2000): 85.
[6] Alejandro L. Corbacho, "Argentine Command Structure" and its Impact on Land Operations during the Falklands / Malvinas Campaign (1982)," (Manuscript, Universidad del CEMA, September 2004).
[7] Laucirica, "Lessons from Failure," 85; Hastings and Jenkins, *The Battle for the Falklands,* 343.
[8] EconomicExpert.com, http://www.economicexpert.com/4a/Falklands:Campaign.html

[9] Hastings and Jenkins, *The Battle for the Falklands,* 347-354.

[10] Hastings and Jenkins, *The Battle for the Falklands,* 83.

[11] Joseph Allen McCullough, "The Falklands Campaign, The Air and Sea Campaigns," Suite101.com, http://modern-british-history.suite101.com/article.cfm/the_falklands_campaign#ixzz0XoYq3IRp; Hastings and Jenkins, *The Battle for the Falklands,* 155.

[12] McCullough, "The Falklands Campaign"; Hastings and Jenkins, *The Battle for the Falklands,* 155, 200, 216, 231.

[13] McCullough, "The Falklands Campaign."

[14] Hastings and Jenkins, *The Battle for the Falklands,* 243, 296, 318, 310.

[15] EconomicExpert.com, http://www.economicexpert.com/4a/Falklands:War.html.

[16] *Joint Publication 3-0: Joint Operations*, (11 August 2011), I-3, FIG I-2, http://dtic.mil/doctrine/new_pubs/jointpub_operations.htm.

[17] *JP 3-0*, I-2.

[18] *JP 3-0*, I-2.

[19] *JP 3-0*, I-6, I-7.

[20] Jack Kem, *Planning for Action: Campaign Concepts and Tools* (U.S. Army Command and General Staff College, 2012), 103, http://usacac.army.mil/CAC2/Repository/Planning-for-Action-Kem-August-2012.pdf.

[21] Marina Walker, "Framing the Falklands/Malvinas War: National Interest in the Coverage of The London Times, La Nación (Argentina) and El Mercurio (Chile)," *Universum (Talca) Universum* 1, no. 19 (2004): The media scenario, doi:10.4067/S0718-23762004000100011.

[22] Luscombe, "British Empire", Occupation.

[23] Walker, "Framing the Falklands, April 4.

[24] Walker, "Framing the Falklands, June 15-16.

[25] Walker, "Framing the Falklands, May 3-4; Herbert Friedman, "Psyop of the Falkland Islands War," *PSYWAR.ORG*. October 1, 2005: FALKLAND ISLANDS WAR PSYOP, http://www.psywar.org/falklands.php.

[26] Lawrence Freedman, "The War of the Falkland Islands, 1982," *Foreign Affairs* 61, no. 1 (1982): 203, doi:10.2307/20041358.

[27] Freedman, "The War of the Falkland Islands," 210.

[28] Patrick Hew, "National Effects-Based Operations: The Example of Fleet Air Defence," *Security Challenges* 4, no. 1 (Autumn 2008): 89, 94-95,

http://www.securitychallenges.org.au/ArticlePDFs/vol4no1Hew.pdf.

[29] *Joint Publication 1: Doctrine for the Armed Forces of the United States*, (25 March 2013), GL-13, http://dtic.mil/doctrine/new_pubs/jointpub_capstone.htm.

[30] *JP 3-0, i.*

[31] *JP 3-0,* V-18.

[32] Juan Carlos Murguizur, "The South Atlantic Conflict: An Argentine Point of View," International Defence Review, vol. 16, no. 2 (February 1983): 135-36.

[33] McCullough, "The Falklands Campaign"; Hastings and Jenkins, *The Battle for the Falklands,* 155.

[34] Martin Middlebrook, *The Fight for the Malvinas* (New York: Viking 1989), 103.

[35] Hastings and Jenkins, *The Battle for the Falklands,* 316.

[36] Hastings and Jenkins, *The Battle for the Falklands,* 155.

[37] Hastings and Jenkins, *The Battle for the Falklands,* 323.

[38] *JP 3-0*, II-3.

[39] *JP 3-0*, V-7.

[40] *JP 3-0*, V-7.

[41] Hastings and Jenkins, *The Battle for the Falklands,* 15.

[42] Hastings and Jenkins, *The Battle for the Falklands,* 155.

[43] McCullough, "The Falklands Campaign."

[44] Paolo Tripodo, "General Matthei's refelation and Chilie's role during the Falklands Campaign: A new perspective on the conflict in the South Atlantic", *Journal of Strategic Studies* 26, no. 4 (2003): 118, doi: 10.1080/0141-2390312331279708.

[45] Tripodo, "General Matthei's refelation", 118.

[46] Hastings and Jenkins, *The Battle for the Falklands,* 216.

[47] Hastings and Jenkins, *The Battle for the Falklands,* 178.

[48] Hastings and Jenkins, *The Battle for the Falklands,* 243.

[49] "Operation Corporate, Falklands War, 1982" (Marine Corps Commanders' Program, Day 5, February 2015).

[50] "Capstone Concept for Joint Operations: Joint Force 2020" (10 September 2012): 4, http://dtic.mil/doctrine/concepts/concepts.htm.

Using Strategic Foresight and Systems Thinking Analyses to Craft a U.S. Strategy for the African Sahel and Maghreb

By Colonel Robert Pope, USAF, Lieutenant Colonel Jeffrey Fair, USA, and Major Dale Fenton, USMC

France is conducting counterterrorist (CT) and counterinsurgency (COIN) activities in the Maghreb and Sahel regions of Africa—specifically in Mali, Niger, Chad, and Libya—which align with U.S. interests. The U.S. military has supported these French activities with inter/intra-theater airlift and aerial refueling. However, authorities and funding for that support expire early in 2015. France desires continued U.S. support and reimbursement, but the White House reportedly wants to end this assistance. The question is whether the United States should continue to support French CT and COIN activities in the Maghreb and Sahel.

This issue is important to the United States not only because of terrorism concerns, but also because of the importance of supporting a key ally (France) who is taking the lead in this region. The emergence of groups such as the Islamic State, al-Qaeda in the Islamic Maghreb (AQIM), and the continued threat of Boko Haram in Nigeria have established terrorism threats both in and around the region. AQIM has expanded operations from Algeria to Niger and Chad, Boko Haram has expanded operations from Nigeria into Niger and Chad, and the Islamic State has moved into Libya, recently conducting highly publicized beheadings. These and other Islamist violent extremists organizations (VEOs) pose a destabilizing threat, seeking ungoverned spaces to build forces and launch terror attacks on the region, U.S. allies, and potentially in the U.S.

homeland. The Maghreb and Sahel thus represent a region at risk, but also a group of nations that have great potential to influence wider continent of Africa and the world.

The study team recommends continued U.S. support of French CT and COIN efforts in the region, as well as direct U.S. security, governance, and economic assistance to the governments of Niger, Mali, Chad and Libya. These U.S. and French actions should be more fully coordinated, eliminating duplicative measures and reinforcing areas of shared concern. If both nations use their diverse instruments of national power in a synchronized, deliberate manner, both can achieve their national interests in the region, and can do so in a cost-effective manner in this time of fiscal constraints.

The team arrived at this recommendation by employing several strategic foresight and systems-thinking methods, including modeling the system to understand system behavior and identify key outcome and leverage variables, forecasting global trends and their impact on the problem, exploring alternative futures, social change theory, and anticipatory management.

I. **System Model.** We begin the analysis of the problem by modeling the system which includes key elements and interactions between U.S. national security, French national security, the key attributes and goals of the Maghreb and Sahel governments, and the key attributes and goals of the regional VEOs. The combined system model is shown in Figure 1.
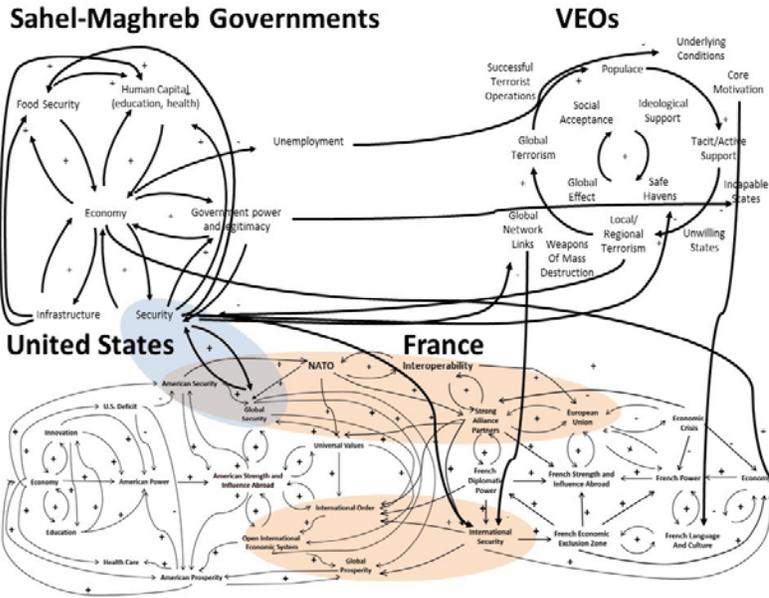
Figure 1. Causal Loop Diagram of the Combined United States / France / Sahel-Maghreb Governments / VEOs System

The portion of the system describing the United States, shown in the lower left portion of Figure 1, is a model of the 2010 United States *National Security Strategy*[1] produced by Professor Dan McCauley at the U.S. Joint Forces Staff College.[2] The left side of the U.S. subsystem represents the domestic portion of the U.S. national security strategy, while the right side represents the international portion. There are many positive, reinforcing loops in this subsystem, such as American strength and influence abroad driving global security and vice versa. The dominant loop in the subsystem runs from American security, to global security, to international order, to American strength and influence abroad, and back to American security.[3]

The portion of the system describing France, shown in the lower right of Figure 1, is a model produced by the study team based on the 2013 *French White Paper: Defence and Security*.[4] The French system model has several

similarities to the U.S. model, and intersects at key points of shared national interests. Although the *French White Paper* does not use the term "Global Security," it does use the similar term "International Security." The interests of both governments merge in the desire for stability, security, and global prosperity. This is realized through cooperation through a strong alliance (namely NATO), military interoperability, and an open international economic system.

When applied to the Maghreb and Sahel, the security situation threatens not only economic prosperity, but also stability within and on the periphery of the region. French economic interests are greater in the region than those of the United States, tying French interests more closely to the local governments. The *French White Paper* also emphasizes shared language and culture across the Francophone world, linking France to its former colonies and regional partners around the globe. The paper describes French interests and argues for continued action to support friendly governments, highlighting French long-term commitment to its allies in the region.

The portion of the system describing the Maghreb and Sahel governments, shown in the upper left of Figure 1, is a model produced by the study team based on several sources, including reports from intergovernmental organizations,[5] U.S. State Department assessments,[6] scholarly journals and books,[7] and media reporting,[8] since the governments of Mali, Niger, Chad, and Libya have not published and made publicly available comprehensive security strategy documents comparable to the U.S. *National Security Strategy* or the *French White Paper*. While these Maghreb and Sahel governments state that they value human capital development and food security, the behavior of these governments

indicates that what they value most is the power and legitimacy of their regime. The key leverage variable in this subsystem is the economy, which feeds positively into every other element in this subsystem. The outcome element in this subsystem of most interest to the United States is security, which is positively influenced by the economy, government legitimacy and power, and infrastructure. In addition to security, France has a greater interest than the United States in improving the local economies and governments, since the French economy is more strongly linked to these countries.

The portion of the system describing the VEOs, shown in the upper right of Figure 1, is a model produced by the study team based on the Terrorism Threat Model found in *JP 3-26* and *Country Reports on Terrorism 2013*.[9] Global network links with VEOs in the region negatively affect international security. French activities that improve the regional economy, governance, and security within the region, negatively affect VEO operations. VEOs have less freedom to raise funds through extortion, kidnapping, and other criminal acts, which supports training and equipping of extremists for more successful attacks. Improving economic conditions within the region counters the negative effects of unemployment, reducing the underlying conditions that create pools of candidates for VEOs to recruit and indoctrinate with their radical ideology. With greater security restricting VEO freedom of movement, VEOs find fewer safe havens to train and indoctrinate, increase membership, and pursue their objectives.

Assembling these four systems facilitates an understanding of how they interact as one large system and facilitates identification of key output variables and leverage variables in the system. There are six bilateral relationships among these four subsystems; each is described briefly below.

- Sahel-Maghreb governments and VEOs: One key linkage between the Sahel-Maghreb governments and VEOs is the relationship among security of these states, successful VEO attacks, and VEO freedom of movement, while the second key linkage is the relationship from the local economies to unemployment and the youth bulge. This indicates that improving security and reducing unemployment will reduce VEO impacts and VEO power.

- Sahel-Maghreb governments and the United States: The key linkage between the Sahel-Maghreb governments and the United States connects security of these states to global security, which influences American security. This indicates that the primary U.S. national interest in these countries is improving their security. This linkage of interests is highlighted in the blue oval in Figure 1.

- Sahel-Maghreb governments and France: There are two key linkages between France and these countries— between security in the African countries and international security in the French subsystem, and between the African economies and the French economy.

- VEOs and France: VEOs in this part of Africa primarily relate to France through their impact on the Sahel-Maghreb countries' security and economy. However, there is a direct negative linkage between VEO radical Islamist ideology and French language and culture, insofar as these non-French extremist ideologies take root in immigrant communities in France,

leading to lone-wolf or local cell VEOs within France.

- VEOs and the United States: There is currently not a direct linkage between the VEOs in this region and the United States, since their attacks are directed at local and regional actors rather than directly on the United States. However, that could change if these VEOs gain sufficient power and resources, or if they perceive a direct threat from the United States.

- The United States and France: There are two key sets of relationships between the United States and France; both are highlighted in the tan ovals in Figure 1. The first links American security and global security through NATO and interoperability with allies and partners to the French interest in Strong alliance partners and the European Union. The second links American interests in an open international economic system, global prosperity, and international order to the French interest in international security. These linkages demonstrate that the United States and France have several interests in common and that it is in the United States' interest to maintain a strong relationship with France.

II. Global Trends. The next step in the analysis is to apply strategic foresight to identify key global or regional trends, drivers, and endogenous variables which bear on the system and help to understand the problem. A trend is a discernable pattern of change. A driver is a factor that directly influences or causes change. An endogenous variable is an internal variable embedded within the system.[10] Using the *UK Ministry of Defence's Strategic Trends*

Programme: Global Strategic Trends – Out to 2045 as a source document, we identified the following global or regional trends, drivers, and endogenous variables which help us to analyze the United States/France/Maghreb and Sahel Governments/VEO system to determine whether is a sensible U.S. policy to provide financial or other support to French counterterror actions in Mali, Niger, Chad, and Libya. The global, sub-Saharan (which includes Mali, Niger, and Chad), and North African (which includes Libya) of most relevance to the problem are summarized in Table 1, while relevant endogenous variables, based on the causal loop diagram analysis of the system, are listed in Table 2.

Table 1. Trends and Drivers in the Future Environment in the Maghreb and Sahel

Trends	Drivers
Increased instability[11]	Demographics: Sub-Saharan African population is likely to double by 2045.[12] "Rapid population growth is likely to jeopardize social and economic development, particularly in the most vulnerable countries. With the proportion of those in the 15-25 age-group higher in sub-Saharan Africa than anywhere else in the world, young people are likely to be under- or unemployed and hence disaffected, driving instability."[13] Additionally, the large number of ethnic, religious, and linguistic groups across the region does not align with national boundaries (a Nation – State misalignment) and this is likely to continue to drive unstable governments and transnational separatist and criminal movements.
Decrease in military coups and a shift towards representative governments[14]	Governance: A "shift towards representative government is likely to continue, driven by improved education, higher income and better access, via technology, to information and different points of view."[15] "Flawed democracies are still likely to be prevalent in 2045, with some countries subject to authoritarian governments. Demands for democratic elections could become violent, particularly in areas where democracy is not entrenched."[16]

Trends	Drivers
Decline in corruption in some parts of the region, but enduring corruption in other parts[17]	"Poverty, weak political institutions and poorly developed institutional checks and balances will probably continue to drive and allow corruption in some parts of the region. However, this is likely to be mitigated to some extent by: deeper involvement of civil groups; strengthening the judiciary; more transparency (facilitated in large part by increasing information and communication technology); and increasing education and corruption-awareness programs."[18]
Countervailing forces both increase and decrease potential future violent extremism[19] "[T]errorist groups…are likely to continue to target…Western interests in the region and secular governments, with many acting in the name of Islam and following Islamic fundamentalist principles. Most terrorists are highly likely to remain focused on attacks within the region, although Al-Qaeda and affiliated groups are likely to continue to target Western interests out to 2045."[20]	Drivers increasing violent extremism: "dramatic population growth, unfulfilled expectations, unemployment, radicalizing ideologies, widening inequalities and differences in access to resources"[21] "Satellite television channels and social media are also likely to play an increasing role in spreading sectarian mistrust."[22] "Social, economic, religious and political justifications for terrorism are likely to continue to be used by many groups within the region."[23] Drivers decreasing violent extremism: stronger civil societies, economic growth, greater access to education, the growing empowerment of women, and the capacity of African governments and regional organizations, particularly the African Union, to deal with security challenges[24]
Improving economies[25]	Increased resource extraction, including hydrocarbons. "Oil and gas production is likely to grow faster in sub-Saharan Africa than in other regions, attracting significant foreign investment. China is highly likely to continue to be involved in the region."[26]
Increased violent competition for resources and economic inequality[27]	With increasing wealth comes an increase in the potential for violence. "Between 2010 and 2011, friction over resources accounted for approximately 35% of all conflicts in sub-Saharan Africa – and this trend is likely to continue. By 2045, dramatic population growth and the increasing threat from climate change are likely to increase competition for food, water and energy – these factors may also act as catalysts for further violence and instability, particularly in the most fragile countries. Water scarcity could [also] be a key driver of conflict."[28]

Trends	Drivers
Increased population migrations	Drivers include increasing urbanization, violent conflict, and climate change that increases droughts, flooding, and other threats to agricultural and community stability.[29] "Average annual surface temperatures projected to increase across North Africa … by approximately 1.2 times more than the global average. Global drying could lead to a general increase in the size of deserts, such as the Sahara. Annual average rainfall will probably reduce, with a shift to more intense drought events which could negatively impact freshwater availability. These climate and weather factors, coupled with potentially changing pest and disease distribution, could negatively impact crop yields, particularly in the North African region."[30]
Increased connection to diaspora populations, increased accountability of government to the people[31]	Communication technology, including mobile phones and the Internet.[32]
Decrease in infant mortality, decrease or shifts in infectious disease, and an increase in first-world health problems	Sanitation programs, vaccines, and nutritional supplements will drive a decrease in infant mortality. "Changes in temperature and rainfall could impact the geographic distribution of malaria, causing areas of contraction as well as expansion." "A rise in non-communicable diseases such as hypertension, heart disease and cancer" is likely due to changing lifestyles.[33]

Table 2. Key Endogenous Variables in the United States/France/Maghreb and Sahel Governments/VEO System

Endogenous Variables
The U.S. and French vital interests to defeat threats to their respective homelands before they arrive in the homeland
The U.S. and French desires to reduce costs of defense and foreign aid
Increased French willingness, relative to the United States, to engage in counterterrorist or counterinsurgent activities in the Maghreb
Maghreb and Sahel governments which value regime stability and legitimacy over security or well-being of their populations
VEOs who desire a fundamentalist Islamic Caliphate in the Maghreb and Sahel

Trends in population growth, Internet use, and mobile phone use in these countries are shown in Figure 2, Figure 3, and Figure 4.

Forecasting these variables into 2045, Mali, Chad, and Niger are likely to experience explosive population growth, while the growth is more modest in Libya. Internet use in Libya reached more than 16% of the population by 2013 and is growing rapidly, likely resulting in the majority of the population having access to the Internet by 2045. Internet use in Mali, Chad, and Niger started later and is growing more slowly, but could reach perhaps a quarter of the population by 2045, with the heaviest concentration of Internet use in the cities. Mobile phone subscriptions in Libya and Mali have already reached more than one mobile phone per person, and mobile phones will remain ubiquitous in these countries. Mobile phone subscriptions in Niger and Chad were at about 40 per 100 inhabitants in 2013, and the trend has been rising rapidly since 2006, leading to predictions of near-ubiquitous use of mobile phones in these countries by 2045, as well, again with a higher prevalence in the cities.
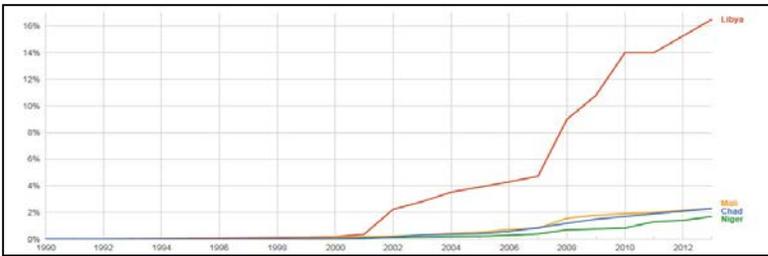
Figure 3. Percentage of individuals using the Internet. Data from International Telecommunication Union. Last updated January 30, 2015.[35]
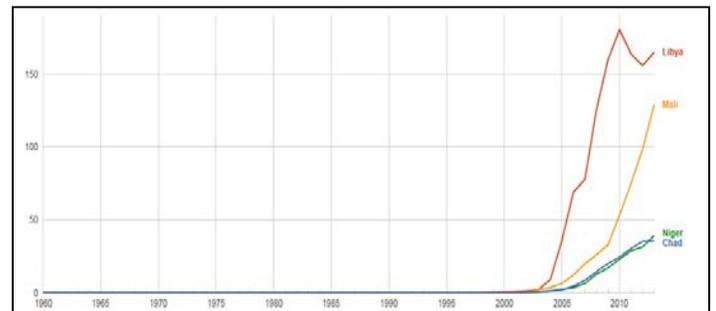
Figure 4. Mobile-cellular subscriptions per 100 inhabitants. Data from International Telecommunication Union. Last Updated January 30, 2015.[36]

Several of the key forces at play in the Maghreb and Sahel environment are shown in the force field analysis in Figure 5. This analysis relates the forces acting against U.S. interests in the Maghreb and Sahel on the left hand side against forces acting in favor of U.S. interests on the right-hand side. The global trends discussed above are affecting the region and are included as part of the forces identified in Figure 5. Some of the forces are external to the region, some are generated wholly within the area, and some external influences have co-opted or combined with internal forces. As the force field analysis graphically demonstrates, the overall balance of forces is working against U.S. interests, requiring action to either increase the effect positive forces or reduce the effect of negative forces.

Figure 2. Population, total both sexes (thousands). Data from Human Development Report 2014. United Nations Development Programme. Last updated July 21, 2014.[34]

Figure 5. Force Field Analysis of the Maghreb and Sahel

In the absence of external intervention or assistance, the study team anticipates that these forces will continue in approximately the same ratios into the future. This means that the negative forces of Islamic extremism, poverty, corruption nation-state misalignment, and criminal gains will continue to overcome the positive countervailing forces in the region. External actors such as the United States and France can assist in increasing the power of the positive forces by countering Islamic extremism by providing alternate messages and by capturing or killing irreconcilable VEOs. External actors can assist with battling poverty, corruption, nation-state misalignment, and criminal gains primarily through international development aid, as well as capacity-building programs for local governments and security forces.

The trends and drivers can also be analyzed using a Futures Wheel, which is a method to explore possible futures by determining first, second, and third-order effects of trends and events.[37] A Futures Wheel assessing the impacts of the projected rapid population growth in the Maghreb and Sahel is shown in Figure 6, while a Futures Wheel assessing the effects of increased access to mobile phones and the Internet is shown in Figure 7. In each figure, the outline colors indicate whether the impact is positive (green

border), negative (red border) or mixed (no border), while the colors within the ovals simply help identify the first-order (pink oval), second-order (tan oval), and third-order (green oval) impacts.

Figure 6. Futures Wheel Examining the Impacts of Population Growth in the Maghreb and Sahel

Figure 7. Futures Wheel Examining the Impacts of Increased Mobile Phone and Internet Use in the Maghreb and Sahel

The Futures Wheel analysis of population grown shows more negative than positive impacts, including some that threaten U.S. security or have a high likelihood of causing a U.S. economic, diplomatic, or military response. The primary branch between positive and negative impacts appears to be whether the larger population leads to a larger employed workforce or to higher unemployment. On the other hand, the Futures Wheel analysis of increased mobile phone and Internet use shows more positive than negative impacts. In this case, the primary branch between positive and negative impacts appears to be whether these communication technologies lead to increased civil society and electronic banking or to improved VEO communication.

III. Alternative Futures. Armed with a better understanding of the mechanics of the United States/France/Maghreb and Sahel Governments/VEO system and the key variables

in the future of that system, the study team examined possible alternative futures for the system, focusing on high-impact variables which are uncertain in their future outcome. The two variables which seem most uncertain in their outcome are those developed in the Futures Wheels—whether increased population growth leads to increased employment or to increased unemployment and scarcity and whether increased mobile phone and Internet availability leads to increased civil society and electronic banking or to increased VEO communication. These uncertain trends could lead to four potential futures in 2045, as shown in Figure 8.
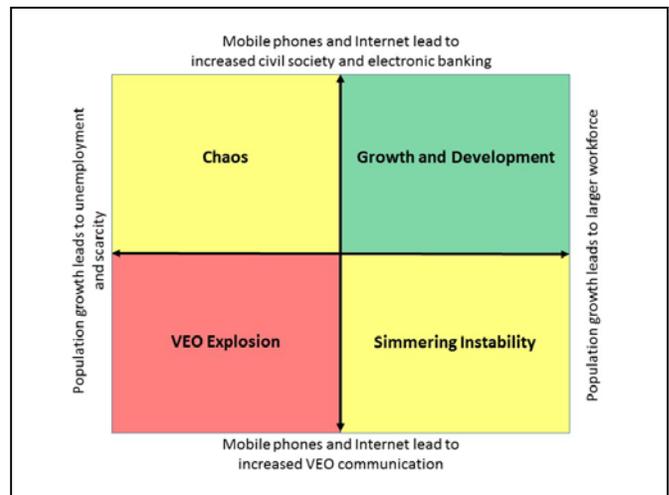
Figure 8. Alternative Futures

- Growth and Development: The upper right quadrant represents the desired future, in which the increasing use of mobile phones and the Internet in the Sahel and Maghreb countries lead to increased civil society through better access to information and to increased electronic banking, coupled with an increasing population that is put into productive work in the economy. These

outcomes would result in a growing economy, a reduction in corruption, better government accountability, and the growth of civic groups necessary for a stable democracy. All of this would reduce the influence of VEOs and increase security, leading to stability, growth, and development. Triggers that could help generate this future include foreign aid targeted toward electronic banking, microloans, and civil society formation, a coordinated campaign to counter VEO messaging, more effective local governments to counter the attractiveness of the VEO alternative, and measures to improve regional agriculture.

- Simmering Instability: If the increasing population is put to productive work in the economy but mobile phones and the Internet do not generate benefits, the decreased unemployment and growing economy will tend to lead to stability, but continued corruption, weak civil society, and effective VEO messaging would permit the VEOs to continue to present an attractive alternative to the Maghreb and Sahel governments. Providing foreign aid that improves security and economic opportunities but which does not leverage the potential of mobile phones and the Internet could lead to this undesirable outcome.

- Chaos: In the reverse of the Simmering Instability future, focus on civil society development that does not also focus on providing employment opportunities for the growing population will lead to a dissatisfied, poor populace with time on their hands, the ability to use mobile phones and the Internet to organize, and

increased effectiveness of VEO messaging and recruitment. Targeting foreign aid on civil society reform and democracy promotion while not sufficiently developing the economy could lead this undesirable outcome.

- VEO Explosion: If the growing population remains largely unemployed, and if increased penetration of mobile phones and the Internet fail to improve finance and reduce corruption, the VEOs, benefiting from a more effective messaging infrastructure, could potentially cause the collapse of one or more of the Maghreb or Sahel governments into a failed state. This worst-case future could result from an absence of foreign aid or attention from the rest of the world while these problems fester and grow.

IV. Social Change. Armed with a range of potential futures and some understanding of the drivers that could lead to each of these future worlds, the study group next turned to social change theory to gain insight into how actors in the system perceive and react to social change, aiding the team in developing recommendations to achieve desired changes in the system. People from different cultures view themselves and others differently. In the United States/France/Maghreb and Sahel Governments/VEO system, there are three unlike groups all interacting with one another in the context of the global trends and regional forces detailed earlier. Social change theory assists in the description of these groups, their values and likely viewpoints on the situation and proposed changes. Of the ten social change theories described by Bishop and Hines,[38] the study team selected a theory that best describes

the interests of each of the three sets of actors in the system. The United States and France are considered one actor in this analysis because they share many common interests in the region and share considerable cultural aspects. In investigating these shared views, the team used Progress Theory to describe Western interests in the Maghreb and Sahel. Progress Theory is the dominant theory used to describe social change in the West and generally assumes that, "Today's society is better than the societies of the past" and that "future societies will be better than the present."[39]

The VEOs are best understood through the lens of Conflict Theory, which describes entities who view the world in zero-sum terms, where one group can only gain through seizing resources from another. These groups also see the world in constant conflict with progress of their faction coming only through struggle.[40] Finally, in order to identify interests of the regional governments and the majority of the population of Mali, Chad, Libya, and Niger, the research team used Culture Theory. This region of Africa has a rich tribal history that existed long before today's political lines were drawn and many inhabitants draw their sense of identity not from governmental associations, but from tribal affiliation. Culture Theory assumes that "society is based on culture more than on material environment of technology (technology being part of culture)" and that "ideas are the key components that give culture its ability to drive change."[41]

Using the applicable social change theory for each group, the research team determined the effects of the identified global and regional trends on each of the stakeholder groups in the system. Table 3 provides a summary of these effects. In this figure, the green boxes identify a global trend producing change that is perceived

as helpful to the interests of the group, while a red box signifies a trend that is counter to the desires of the actor. Although both the Western governments and the VEOs realize an even result (some number of aligned and misaligned trends), the regional governments are not as fortunate. The analysis identifies the risk to the region that global trends pose and the result, much like that of the regional force field analysis, is that the regional governments are at a significant disadvantage.

Table 3. Culture Theory: Global Trends Interaction

Global Trends	US-France	Regional Governments	VEOs
Increased Instability	The West will attempt to counter this trend	These governments also want more stability	Instability increases freedom of maneuver
Decrease in Coups and Increased Governance	Supported and advanced by the West	Moderate support when convenient locally	Better governance decreases VEO support
Decline in Corruption	Supported and advanced by the West	Can be resisted by elements within region	Limits availability of VEOs to bribe and maneuver
Increasing Violent Extremism	Fought by the West	Fought by regional governments	In Support
Decreasing Violent Extremism	Actively supported by the West	Supported by regional governments	In Conflict
Improving Economies	Increases stability and supported by Wes	Increases support for local governments	Can take possible recruits but can create funds
Increased Competition for Resources	Increased costs involved with protecting resources	Can take funds from local governments	Can limit funding for operations
Increased Population Migrations	Lessens stability, but can also stimulate economy	Can increase costs and stress delivery of services	Increased possible recruiting from underclass
Changing Medical Concerns	Elderly population stresses budget domestically	Youth bulge stresses local health systems	Increases recruiting possibilities

■ In Alignment   □ Partial Alignment   ■ Interests/action conflict with Global trend

Figure 9 shows what the three groups will likely do in reaction to each other, considering both the impact of global trends and of each other's actions in the region. Conflict arises at the interaction of the VEOs (Conflict Theory) and both the regional and Western governments. This conflict likely will not be eliminated (some irreconcilable VEOs will need to be captured or killed because they will not shift their paradigm away from their zero-sum viewpoint and goals), but considerations can be made to minimize conflict through astute understanding of Conflict Theory and communicating to counter

its negative aspects. Although there is some alignment of interests between the Western governments and the regional governments, the only way to ensure success is to understand what Culture Theory has to say about views on change. The United States and France should use that knowledge to form plans that allow for the culture to adopt need technologies, while framing other changes in terms of regional cultures and countering VEO messaging in a way that resonates with the Culture Theory point of view held by the local governments and majority of the population.
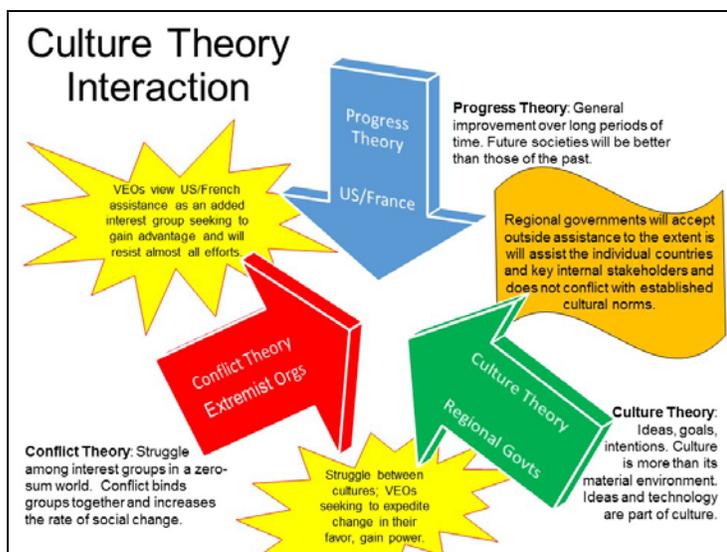
Figure 9. Culture Theory: Interaction of Progress Theory, Culture Theory, and Conflict Theory in the United States/France/Maghreb-Sahel Governments/VEO System

V. Anticipatory Management. The final strategic forecasting tool the team used in this analysis was Anticipatory Management, which is a method used by organizations to identify and prioritize issues that could develop into situations requiring timely policy decisions. According to Molitor model of change theory, issues generally follow a life cycle wherein the magnitude of the signal—the indicator of an existing or future issue—increases over time. Significant issues often arise initially out of social expectations, then become part of the policy agenda as governments first debate and then formalize their policies on the issue, and finally culminate through execution and monitoring of the policy, or social control of the issue.[42]

To apply the anticipatory management analysis to the issue under study, the study team assessed and categorized internal and external issues that require immediate action (Category I), future but not immediate action (Category II), and no action other than monitoring (Category III). The results, shown as votes by each of the three members of the study team, are shown in Table 4.

Table 4. Anticipatory Management: Issue Categorization

	Issue	Category I (Immediate Action)	Category II (No Immediate Action)	Category III (No Action; Monitor)
IN	Increased instability	III		
RI	Radicalizing ideologies	III		
IC	VEO desire for Salafist Islamic Caliphate	III		
WH	World health problems	II	I	
$D	U.S. cost cuts to defense and foreign aid	II	I	
FCT	Increased French CT activity	II	I	
EC	Enduring corruption	I	II	
RSL	Maghreb and Sahel governments' pursuit of regime stability and legitimacy over security or well-being of their population		III	
EMP	Unemployment		II	I

	Issue	Category I (Immediate Action)	Category II (No Immediate Action)	Category III (No Action; Monitor)
VC	Increased violent competition for resources		II	I
POP	Dramatic population growth and increased migrations			III
WI	Widening inequalities			III
IT	Increased tech connection to diaspora populations			III

Figure 10 plots these issues along Molitor's Life Cycle curve, which places each of the issues in terms of the magnitude of signals indicating the importance of the issue and the timing of the issue in the policy cycle. Several of the issues identified by this study are also covered in the 2015 U.S. *National Security Strategy*—including increased instability (IN), radicalizing ideologies (RI), world health problems (WH), enduring corruption (EC), Maghreb and Sahel governments' pursuit of regime stability and legitimacy over security or well-being of their population (RSL), unemployment (EMP), and widening inequalities (WI)—indicating that these issues are well into the policy formalization portion of the U.S. policy cycle.[43] Three other issues— VEO desire for a Salafist Islamic Caliphate (IC), U.S. cost cuts to defense and foreign aid ($D), and increased French CT activity (FCT)—have strong signals but are not mentioned in the 2015 National Security Strategy, indicating that they are important issues on the policy agenda but have not yet resulted in formalized policies. The final three issues—increased violent competition for resources (VC), dramatic

population growth and increased migrations (POP), and increased tech connection to diaspora populations (IT)—have weaker signals and do not yet appear to have entered the U.S. policy cycle. Because it is often easier and less expensive to solve a problem earlier in its life cycle, the Anticipatory Management analysis indicates that U.S. policymakers should place their attention on formalizing and implementing policies for the three issues identified in the policy agenda portion of the life cycle curve, while monitoring the three issues in the societal expectations part of the curve.
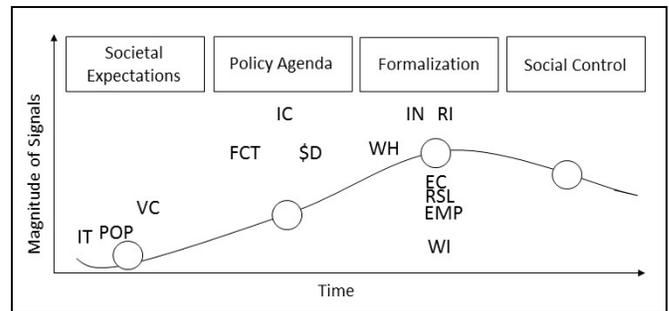
Figure 10. Anticipatory Management: Issue Life Cycle

VI. Conclusions and Recommendations. We can draw several conclusions from the strategic foresight and systems-thinking methods applied to the question of whether the United States should continue to support French CT and COIN activities in the Maghreb and Sahel. The system model analysis identified shared U.S. interests with France in security in the Maghreb-Sahel region, global security, the NATO alliance, and an open international economic system. The system model also identified the economy as a key leverage variable in the system and noted a causal loop in the Maghreb-Sahel system relating the economy, security, and the local governments.

The global trends analysis identified trends in the future environment which will drive the Maghreb-Sahel region into a future that fails to achieve U.S. interests without external intervention to counter Islamic extremism and improve regional economic conditions. Achieving a future of improved regional security, economic growth and development, and reduced corruption and violent extremism requires assisting the governments and populations in leveraging growing populations and the increase in access to mobile phones and the Internet to increase civil society through better access to information, increased electronic banking, and increased employment opportunities. The global trends analysis also indicates the importance if improving the effectiveness and inclusiveness of the local governments to reduce the impact of the geographic misalignment of state boundaries and national or tribal boundaries, and to counteract the attractiveness of the VEOs' proposed alternative to the current local governments.

The social change theory analysis indicates that the U.S. and French approach to change must positively resonate with the regional governments and populations through a Culture Theory lens, which means that actions and messages must value and align with local cultures and traditions. Social change theory also indicates that many of the VEOs, who view change through a zero-sum Conflict Theory, will need to be captured or killed to improve security and reduce VEO messaging, as many in these groups are irreconcilable and will not join a society whose goals are anything other than a Salafist Islamic Caliphate.

Finally, the anticipatory management analysis recommends that U.S. policymakers address key issues early in their life cycle, when they are often more economical to address than when the issues have matured. This means policymakers should focus now on VEO desire for a Salafist Islamic Caliphate in the Maghreb-Sahel region and on balancing potential cuts to U.S. defense and foreign aid budgets with increased French CT activity in the region.

Based on the conclusions from these strategic foresight and system-thinking analyses, the study team recommends that the United States continue to support French CT and COIN activities in the Maghreb and Sahel, synchronizing these activities with direct U.S. security, governance, and economic assistance to the governments in this region. This policy approach considers the dynamics of the system, the likely future environment, and the differing actors' perceptions of change, while recommending steps that can achieve U.S. interests in the region at a lower overall cost and effort by tackling them earlier in the issue life cycle, before these issues become crises. Supporting French efforts in the region further contributes to reducing direct costs on the United States to achieve its interests in the region, while also reinforcing relations with France, a U.S. ally which is important to the strength of the NATO alliance and to other actions the Unites States desires to conduct around the world with allies and partners to improve global security and maintain an open international economic system.

The study team's recommended U.S. policy for the Maghreb-Sahel region can be depicted as five synchronized lines of effort (LOE), as shown in Figure 11. Each LOE in this figure depicts U.S., French, and local government actions and shows a shifting weight of effort over time, with direct U.S. and French actions in the near and mid-term shifting to predominately local government actions in the

far term as the U.S. and France assist the local governments in building indigenous capacity in each of these areas. The United States should ensure that actions in each LOE are properly calibrated to achieve the desired results and are synchronized and deconflicted with France's efforts in the region so both the United States and France can achieve their shared national interests in the most economical manner.

Figure 11. Recommended Lines of Effort to Achieve U.S. Interests in the Maghreb-Sahel Region. "DIME" refers to the diplomatic, informational, military, and economic instruments of national power, respectively, with the large letters indicating the predominant element(s) involved in each line of effort.

The first two LOEs—intelligence and airlift—represent the support the United States currently provides to French CT and COIN efforts in the region under legal authorities which are currently set to expire in early 2015. In the intelligence LOE, the United States should continue to provide tactical intelligence support and regional intelligence coordination to France and should build counter-VEO intelligence capacity within the Sahel-Maghreb governments. In the airlift LOE, the United States should, in the near-term, continue to

provide inter- and intratheater lift in support of French CT and COIN activities, while building both French and Maghreb-Sahel government capability to take on this role in the mid- to long-term. The White House should request renewal of the enabling legal authorities so the Department of Defense can continue these programs.

The third LOE is military training. In this LOE, the United States should use security cooperation authorities to improve French and Maghreb-Sahel government capability to capture and kill irreconcilable VEOs and counter VEO messaging and other capabilities. The Department of Defense already has several security cooperation legal authorities and funding streams to conduct such assistance, but these authorities and programs could be better synchronized with the other LOEs to improve the likelihood of achieving the desired U.S. outcome in the region.

The fourth and fifth LOEs—governance and economic development—fall outside of the Department of Defense and are the respective responsibilities of the State Department and the U.S. Agency for International Development (USAID). In the governance the United States should contribute to civil-society development and strengthening of local government institutions. The pace of these governance development activities must be synchronized with the pace of development in the local security sectors to reduce the likelihood that a well-developed military will conduct a coup against a poorly-developed local government—a very real concern in this region. Finally, in the economic development LOE, the study team's analysis indicates that the United States should focus on assistance programs that contribute to electronic banking, microloans, and increased employment opportunities.

Properly targeted and synchronized, the United States and France stand a very real chance of achieving their national interests in this region without significant increase in funding, since nearly all of the actions in these five LOEs are currently underway. However, decoupling U.S. and French efforts, or permitting the Department of Defense, State Department, and USAID to conduct isolated efforts, or efforts focused on short-term goals rather than calibrated to the long-term global trends and system dynamics, will decrease the chances of achieving U.S. policy goals in the region.

Team Biographies

Colonel Robert S. Pope, USAF, is currently serving as the chief of the Program Integration Division in the Cooperative Threat Reduction Program at the Defense Threat Reduction Agency. He was commissioned through the Air Force ROTC at Michigan State University in 1991. Col Pope earned a BS in Physics from Michigan State University in 1991, an MS in Physics from the Air Force Institute of Technology in 1993, a PhD in Physics from the Air Force Institute of Technology in 1999, and a Master of Military Operational Art and Science from the Air Command and Staff College in 2004. Col Pope was a National Defense Fellow at the Harvard Kennedy School's Belfer Center for Science and International Affairs, where he wrote the book *U.S. Interagency Regional Foreign Policy Implementation: A Survey of Current Practice and an Analysis of Options for Improvement*. Prior to his current assignment, Col Pope served as the deputy chief of the Security Cooperation Division at the United States Central Command.

Lieutenant Colonel Jeffrey J. Fair, USA, is currently assigned to 525th Military Intelligence Brigade, Fort Bragg, NC. He was commissioned through ROTC at Georgetown University in 1997. LTC Fair has a BA in International Relations from the George Washington University, an MBA from Hawaii Pacific University in 2001, a MPA from the University of Washington's Evans School in 2009, and a MS in Strategic Intelligence from the National Intelligence University in 2012. Prior to his current assignment, LTC Fair served as the Chief of Ground Analysis, J2, United States Forces Korea.

Major Dale R. Fenton, USMC, is currently serving as Branch Chief, Joint Multi-Tactical Data Link School, at the Joint Staff, J7 Joint Interoperability Division. He was commissioned upon completing the Officer Candidates Course in 2001. Maj Fenton earned a Bachelor of Music degree from the University of Akron in 1997 and a Master of Business Administration from National University in 2014. Prior to his current assignment, Maj Fenton served as Unmanned Aircraft Commander and Assistant Operations Officer at Marine Unmanned Aerial Vehicle Squadron 2 (VMU-2).

[1] White House, *National Security Strategy* (NSS) (Washington, D.C., May 2010).
[2] Dan McCauley, *The Practitioner's Guide to Strategic Foresight*, (Norfolk, VA: Joint Forces Staff College, Jan 2015), 11.
[3] Ibid.
[4] Republique Francaise, *French White Paper: Defence and National Security*,(Ministère de la Défense / SGA / SPAC., 2013).

[5] International Monetary Fund (IMF), *Niger: Poverty Reduction Strategy Paper, Economic and Social Development Plan 2012-2015*, (IMF Country Report No. 13/105, April 2013), http://planipolis.iiep.unesco.org/upload/Niger/Niger_PRSP_2012-2015.pdf (accessed February 12, 2015). United Nations Development Programme (UNDP), *Chad vows to eradicate hunger, boost community resilience*, (Press release, September 16, 2013), http://www.undp.org/content/undp/en/home/presscenter/pressrelease s/2013/09/16/chad-vows-to-eradicate-hunger-boost-community-resilience-/ (accessed February 12, 2015). Rural Poverty Portal, *Rural poverty approaches, policies and strategies in Chad*, (no date), http://www.ruralpovertyportal.org/country/approaches/tags/chad (accessed February 12, 2015).

[6] United States Department of State, Bureau of African Affairs, *Fact Sheet: U.S. Relations with Chad,* (May 21, 2014), http://www.state.gov/r/pa/ei/bgn/37992.htm (accessed February 12, 2015). United States Department of State, Bureau of African Affairs, *Fact Sheet: U.S. Relations with Libya,* (January 15, 2013), http://www.state.gov/r/pa/ei/bgn/5425.htm (accessed February 12, 2015). United States Department of State, Bureau of African Affairs, *Fact Sheet: U.S. Relations with Mali*, (April 30, 2013), http://www.state.gov/r/pa/ei/bgn/2828.htm (accessed February 12, 2015). United States Department of State, Bureau of African Affairs, *Fact Sheet: U.S. Relations with Niger* (June 12, 2013), http://www.state.gov/r/pa/ei/bgn/5474.htm (accessed February 12, 2015).

[7] Peter Tinty, "Mali 2.0," *Foreign Policy*, (September 23, 2013), http://foreignpolicy.com/2013/09/23/mali-2-0/ (accessed February 12, 2015). Library of Congress Federal Research Division, *Mali Country Profile* (Washington, D.C., January 2005). Sebastian Elischer, "After Mali Comes Niger," *Foreign Affairs* (January/February 2013), http://www.foreignaffairs.com/articles/138931/sebastian-elischer/after-mali-comes-niger (accessed February 12, 2015). Samuel Decalo, *Coups and Army Rule in Africa*, (Yale University Press, 1990). *Foreign Relations of Chad*, (no date), https://www.princeton.edu/~achaney/tmve/wiki100k/docs/Foreign_relations_of_Chad.html (accessed February 12, 2015).

[8] Jon Lee Anderson, "Libya on Edge," *The New Yorker*, (January 30, 2015), http://www.newyorker.com/news/news-desk/libya-edge (accessed February 12, 2015).

[9] Joint Publication 3-26, *Counterterrorism* (October 24, 2014). United States Department of State, Bureau of Counterterrorism., *Country Reports on Terrorism 2013*, (Washington, D.C., April 2014).

[10] McCauley, *The Practitioner's Guide to Strategic Foresight*, 15.

[11] United Kingdom Ministry of Defence, *Strategic Trends Programme: Global Strategic Trends – Out to 2045*, 5th Edition, (DCDC, MOD, SWINDON, Wiltshire, UK, SN6 8RF, 2014), 133.

[12] Ibid., 133.

[13] Ibid.

[14] Ibid., 134.

[15] Ibid.

[16] Ibid.

[17] Ibid.

[18] Ibid.

[19] Ibid., 135.

[20] Ibid., 131.

[21] Ibid., 135.

[22] Ibid., 130.

[23] Ibid., 131.

[24] Ibid., 135.

[25] Ibid.

[26] Ibid.

[27] Ibid.

[28] Ibid., 135-136.

[29] Ibid., 136.

[30] Ibid., 129.

[31] Ibid., 137.

[32] Ibid.

[33] Ibid., 137-138.

[34] Google Public Data, http://www.google.com/publicdata/directory (accessed March 1, 2015).

[35] Ibid.

[36] Ibid.

[37] McCauley, *The Practitioner's Guide to Strategic Foresight*, 16.

[38] Peter C. Bishop and Andy Hines, "Social Change," in *Teaching about the Future,* (New York, NY: Palgrave Macmillan, 2012), 119.

[39] Ibid., 120.

[40] Ibid., 133.

[41] Ibid., 126.

[42] Dan McCauley, "Joint Professional Military Education: Anticipating at the Speed of the Environment," *Small Wars Journal,* (April 3, 2014), n.p.

[43] White House, *National Security Strategy*, (Washington, D.C., February 2015), 9, 10, 13, 18, and 24.

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