
THE DISAM JOURNAL OF INTERNATIONAL SECURITY ASSISTANCE MANAGEMENT

I hope all is well with you from wherever you may be reading this edition of the DISAM Journal of International Security Assistance Management. We have featured the United States Northern Command (USNORTHCOM), our newest Combatant Command, and the North American Aerospace Defense Command (NORAD) in this issue. USNORTHCOM has theater security cooperation responsibility with Canada and Mexico, with relatively very few permanently assigned forces. You can read about a number of issues addressed by contributing authors that give us a good overview of the Command's role, priorities, and initiatives.

Following the feature is the annual Offsets Report prepared by the Commerce Department for Congress. The report provides definitions and updated data, and the growing trend in this area of security assistance and security cooperation interest. As we approach the end of the Congressional Continuing Resolution environment for fiscal year 2007, we have included the discourse for fiscal year 2008 budget in this edition.

We have also included excerpts from the Department of State 2007 International Narcotics Control Strategy report. Regional Department of State policies are vibrant topics regardless of the area of the world you might be interested in. In this Journal we run the gamut including Somalia, Africa, Turkey, India, South and Central Asia, South Pacific, Europe and the Western Hemisphere. We have not left any region out!

Charley Tichenor from Defense Security Cooperation Agency's International Technology Directorate, provides us with his perspective as it relates to return on investment of information assurance. Lieutenant Colonel Womack provides some best practices in the international student vetting process that have helped in his situation working programs for Jordan. He provides some insight on human rights vetting which is a challenging process to the security assistance officer as the linchpin of the effort.

Again thank you for your support of DISAM Journal of International Security Assistance Management. Please provide us feedback on this Journal or an article for the next Journal. We are always looking for articles from the field dealing with subjects concerning security assistance. Take care, more to come next quarter!



RONALD H. REYNOLDS
Commandant



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Feature Articles

“United States Northern Command”	1
“North American Aerospace Defense Command”	3
George P. “Rocky” Gaines, North American Aerospace Defense Command “The Power of Alignment for Multi-Command Cooperation”	4
Lieutenant Colonel Phil Wilker, USA (Ret.) and Colonel Keith Snook, USA (Ret.) “Knowledge Management: Harnessing Mental Capital for the Future”	11
George P. “Rocky” Gaines, North American Aerospace Defense Command “Expanded Military Cooperation in the Western Hemisphere”	15
Dr. Biff Baker, North American Aerospace Defense Command “The United States and Mexico Enhanced Military Cooperation”	26
Commander Curtis Jenkins, USNR, Lockheed Martin “Taking the Communication High Ground The Case for a Joint Inter-Agency Task Force for Strategic Communication”	36

Legislation and Policy

“Offsets in Defense Trade Eleventh Report to Congress, January 2007”	39
Anne W. Patterson, Assistant Secretary of State for International Narcotics and Law Enforcement Affairs, “2007 International Narcotics Control Strategy Report”	63
Randall L. Tobias, United States Director of Foreign Assistance and Administrator of United States Agency for International Development “Fiscal Year 2008 Testimony on Foreign Assistance Budget”	66
Kristen Silverberg, Assistant Secretary of State for International Organization Affairs “The President’s Fiscal Year 2008 Budget for International Organizations and Peacekeeping”	74
James Swan, Deputy Assistant Secretary of State for African Affairs “Foreign Affairs – Somalia”	78
Al Pessin, Voice of America “The United States Creates Military Command for Africa”	84
Thomas J. Christensen, Deputy Assistant Secretary of State for East Asian and Pacific Affairs “United States and China Relations”	86
Daniel Fried, Assistant Secretary of State for European and Eurasian Affairs “The United States and Turkish Relations and the Challenges Ahead”	93
R. Nicholas Burns, Under Secretary of State for Political Affairs “A Future Unbound: The United States and India Relations”	96

Richard A. Boucher, Assistant Secretary of State for South and Central Asian Affairs “A Regional Overview of South Asia”	102
R. Nicholas Burns, Under Secretary of State for Political Affairs “The Untied States and European Alliance”	107
Glyn Davies, Deputy Assistant Secretary of State for East Asian and Pacific Affairs “United States Policy Toward South Pacific Island Nations Including Australia and New Zealand”	115
Thomas A. Shannon, Assistant Secretary of State for Western Hemisphere Affairs “Vision and Foreign Assistance Priorities for the Western Hemisphere”	120
Education and Training	
Charley Tichenor, Defense Security Cooperation Agency “A Model to Quantify the Return on Investment of Information Assurance”	125
Lieutenant Colonel David R. Womack, USA, Joint Training Officer Military Assistance Program: United States Embassy, Amman, Jordan “Human Rights Vetting: The Process and Lessons Learned”	135

FEATURE ARTICLES



United States Northern Command

The U.S. Northern Command (USNORTHCOM) was established October 1, 2002 to provide command and control of Department of Defense (DoD) homeland defense efforts and to coordinate defense support of civil authorities. USNORTHCOM defends America's homeland by protecting our people, national power, and freedom of action. For additional information about the U.S. Northern Command visit our web site at: www.northcom.mil.

USNORTHCOM's specific mission:

Conduct operations to deter, prevent, and defeat threats and aggression aimed at the United States, its territories and interests within the assigned area of responsibility (AOR) . . . as directed by the president or secretary of defense, provide defense support of civil authorities including consequence management operations.

USNORTHCOM's AOR includes air, land and sea approaches and encompasses the continental United States, Alaska, Canada, Mexico and the surrounding water out to approximately 500 nautical miles. It also includes the Gulf of Mexico and the Straits of Florida. The defense of Hawaii and our territories and possessions in the Pacific is the responsibility of U.S. Pacific Command. The defense of Puerto Rico and the U.S. Virgin Islands is the responsibility of U.S. Southern Command. The commander of USNORTHCOM is responsible for theater security cooperation with Canada and Mexico.

USNORTHCOM consolidates under a single combatant command existing missions that were previously executed by other DoD organizations. This provides unity of command, which is critical to mission accomplishment. USNORTHCOM plans, organizes and executes homeland defense and civil support missions, but has few permanently assigned forces. The command is assigned forces whenever necessary to execute missions, as ordered by the president and secretary of defense. Civil service employees and uniformed members representing all service branches work at USNORTHCOM's headquarters located at Peterson Air Force Base in Colorado Springs, Colorado.

The commander of USNORTHCOM also commands the North American Aerospace Defense Command (NORAD), a bi-national command responsible for aerospace warning and aerospace control for Canada, Alaska and the continental United States.

USNORTHCOM's civil support mission includes domestic disaster relief operations that occur during fires, hurricanes, floods and earthquakes. Support also includes counter-drug operations and managing the consequences of a terrorist event employing a weapon of mass destruction. The command provides assistance to a lead agency when tasked by DoD. Per the *Posse Comitatus Act*, military forces can provide civil support, but cannot become directly involved in law enforcement.

In providing civil support, USNORTHCOM generally operates through established joint task forces subordinate to the command. An emergency must exceed the capabilities of local, state and federal agencies before USNORTHCOM becomes involved. In most cases, support will be limited, localized and specific. When the scope of the disaster is reduced to the point that the lead agency can again assume full control and management without military assistance, USNORTHCOM will exit, leaving the on-scene experts to finish the job.



North American Aerospace Defense Command

The North American Aerospace Defense Command (NORAD) is a bi-national United States and Canadian organization charged with the missions of aerospace warning and aerospace control for North America. Aerospace warning includes the monitoring of man-made objects in space, and the detection, validation, and warning of attack against North America whether by aircraft, missiles, or space vehicles, through mutual support arrangements with other commands. Aerospace control includes ensuring air sovereignty and air defense of the airspace of Canada and the United States. The May 2006 NORAD Agreement renewal added a maritime warning mission, which entails a shared awareness and understanding of the activities conducted in U.S. and Canadian maritime approaches, maritime areas, and inland waterways.

To accomplish these critically important missions, NORAD continually adjusts its structure to meet the demands of a changing world. The commander is appointed by, and is responsible to, both the U.S. president and the Canadian prime minister. The commander maintains his headquarters at Peterson Air Force Base, Colorado. The NORAD and U.S. Northern Command (USNORTHCOM) Command Center serves as a central collection and coordination facility for a worldwide system of sensors designed to provide the commander and the leadership of Canada and the U.S. with an accurate picture of any aerospace threat. Three subordinate regional headquarters, located at Elmendorf Air Force Base, Alaska, Canadian Forces Base, Winnipeg, Manitoba, and Tyndall Air Force Base, Florida, receive direction from the commander and control air operations within their respective areas of responsibility.

To accomplish the aerospace warning mission, the commander of NORAD provides an integrated tactical warning and attack assessment to the governments of Canada and the United States. To accomplish the aerospace control mission, NORAD uses a network of satellites, ground-based radar, airborne radar and fighters to detect, intercept and, if necessary, engage any air-breathing threat to North America. As a part of its aerospace control mission, NORAD assists in the detection and monitoring of aircraft suspected of illegal drug trafficking. This information is passed to civilian law enforcement agencies to help combat the flow of illegal drugs into North America. The command is currently developing a concept for implementing the new maritime warning mission.

Through outstanding bi-national cooperation, NORAD has proven itself effective in its roles of watching, warning, and responding. NORAD continues to play an important role in the defense of Canada and the U.S. by evolving to meet the changing threat. The events of September 11, 2001 demonstrated NORAD's continued relevance to North American security. Today, NORAD provides civil authorities with a potent military response capability to counter domestic airspace threats.

While the national leadership of Canada and the U.S. continue to refine our response to the terrorist threat, NORAD's proven abilities and unique capabilities will remain a vital part of homeland defense.

The Power of Alignment for Multi-Command Cooperation

By
George P. "Rocky" Gaines
North American Aerospace Defense Command

Introduction

Throughout history, organizations, companies, tribes, and commands have had to cooperate with each other to reach their mutual objectives. For example:

- The Sioux and Cheyenne were obliged to merge to fight Custer
- Professional sports teams work with the front office
- Proctor and Gamble discovered it had to cooperate with Wal-Mart
- The power transmission unit of a utility has to get in step with the distribution side of the house
- Military commands, staffs and components have to focus on an agreed main thing to ensure mission success

This paper offers a proven approach to using the power of organizational alignment both to capitalize on the strengths and to address the corporate impediments of organizations that rely on each other in order to work together, that form an entity of their own. These considerations focus on opportunities for operational synergy and greater cooperation by:

- Performing a culture dig¹ to analyze the culture and the operational environment
- Using an alignment model to identify areas of internal and external alignment at every level
- Building a structure tree to clarify key areas for organizational focus and action

The model applies to practically all large organizations and will use North American Aerospace Defense Command (NORAD) and U.S. Northern Command (USNORTHCOM) as illustrative examples.

In the years since Canada and the United States first signed the NORAD Agreement on May 12, 1958, NORAD has evolved to deal with continuing changes in the character of strategic weapons and in the nature of the threat they have posed to North America. At the end of the Cold War, we witnessed dramatic changes in the geostrategic environment, which shifted the focus of North American aerospace defense. The traditional Cold War threat has altered, both in terms of the nations or groups that might choose to challenge North American security and the weapons that could be employed.

Strategic arms reduction treaties and other arms control initiatives continue to promise deep cuts in strategic ballistic missile nuclear forces. However, large residual nuclear arsenals capable of striking our continent will still exist after programmed reductions are made. Meanwhile, we continue to read about other nations which are attempting to acquire nuclear-capable ballistic missiles and other weapons of mass destruction (WMD).

1. Organizational Dynamics, Inc. 790 Boston Road, Suite 201, Billerica, Massachusetts 01821.

The terrorist attacks of September 11, 2001, represented another dramatic change in the security of North America; thus the creation of USNORTHCOM. Since then, the overall threat to the North American continent has greatly increased, and the proliferation of WMD and their delivery systems to state and non-state actors has emerged as a major security challenge. This evolution has introduced the threat of asymmetric activities that have the additional potential to affect the decision-making processes associated with the defense of North America.

In the last ten years, space has become an increasingly important component of most traditional military activities, and requirements for enhanced missile warning are taking on added significance. Additionally, the proliferation of cruise missile technology, unmanned aerial vehicles, and non-military air activity associated with drug trafficking and other illegal activities is causing increasing concern. Domestically, the overall volume of air traffic flowing daily to, from, and within our airspace will continue to expand and will dictate an even higher degree of coordination between our national airspace surveillance and control systems and their military components.

The wide range of threats to our continent coming from the seas and major waterways, plus the issue of cyber security will also pose significant concerns. Finally, our vast and open borders will require both a closer level of cooperation than exists today between the joint and combined forces and improved coordination of military to military defense support to civil authorities.

For these reasons, it is crucial to the defense of North America that NORAD and USNORTHCOM strengthen their relationships at every level to ensure they fulfill their charge in the most efficient and cost effective manner possible. The collective leadership of this enterprise is the cornerstone for any efforts at improved cooperation.

Background

USNORTHCOM and NORAD are two unique and very different Commands whose physical proximity, dual-hatted staffs and complementary missions demand an extremely close working relationship. The two Commands have no choice but to work together. However, many times the atmosphere is strained, and the approach to work has a zero sum flavor, not unlike staffs the world over.

USNORTHCOM is new. The Command is still developing its *raison d'être* while dealing with the mammoth challenge of having the primary responsibility for defense of the homeland. Instead of concentrating on one domain, it must pay attention to multiple environments. As such, it is a very joint and interagency focused organization. Hours are long, the stress level relatively high, and work happens in a much more formal and structured atmosphere.

NORAD is a mature, joint, bi-national Command that has focused on aerospace warning and aerospace control since 1958. It has been a fighter pilot's Command, livened up by the presence of a Canadian and United States flavor not unlike the North Atlantic Treaty Organization Command. People work in a more relaxed atmosphere, and the way work gets done, while highly professional, is less formal and structured than the Joint Staff or Combatant Command way of doing business.

At times, each Command believes it has the organizational truth, but the truth is we live in an ambiguous world, change happens, and it is important to be comfortable with ambiguity. Working conditions and the strategic environment are constantly changing and becoming more complex. Old certainties are gone. If we cannot adapt to the new environment, we risk Rita Mae Brown's observation, "Insanity is doing the same thing again and again, but expecting different results."²

2. *The Power of Alignment*, Labovitz and Rosansky, 1997, Wiley & Sons, Inc., pp. 43-44.

Directing the way through this shifting environment, leaders must be able to shape their culture, align their organization, gain commitment of the people, and build integration of the many moving parts.

Shaping the Culture

Generally speaking, when the subject of organizational culture comes up in a military context, members dismiss it as soft, squishy vaporware, quickly dispatching it to that netherworld of undiscussibles. Like it or not, culture is what we are, what we do, and where we live. Culture determines how effective the leadership is, how the staff works, and ultimately, how well we fight. Since culture is so huge to the success of an organization, it is worthwhile investigating what works, what does not work, what we can not talk about, and what to do about it.

Many people in an organization can describe the Command's goals and strategies to achieve them. There is probably even a plan to attain the targets, but that is not enough. For the plan to succeed, leaders have to understand and manage both the formal and informal rules as well as the rational and irrational procedures that fill the organization. The culture, whether it is within an organization or a society, is very powerful. It transmits itself from one generation to the next. After a while, nobody even remembers who made up the rules or why. The culture is simply "the way it is here." Every organization has a culture, and that culture is largely determined by what gets measured; because measurement determines behavior, and behavior determines culture.

If you wanted to explain clearly to someone how things get done in your organization, what to watch for, what to do, and what to avoid, what would you say? An effective way to figure that out is through a culture dig, similar to what anthropologists do to understand the history of civilizations. In their studies, they have found four categories of information that provide helpful insight. Artifacts and symbols are objects or physical representations of the culture such as flags, patches, titles, organizational structures, use of time and space, technology, language and artistic creations. Stories and myths are verbal artifacts that emphasize and explain the critical values and beliefs of the culture. Some are mainly factual (stories), while others are more allegorical (myths and legends). Relationships represent the formal and informal connections between people in the culture. They include the permanent structures, temporary alliances, individual interactions, and seemingly random groupings you will find in every society.

Rules of behavior are the things that people typically do. Some rules are very formal or explicit policies, practices, and ceremonies that are written down or verbally sanctioned by the leadership of the culture. Other norms are more informal. They are "the way we really do things around here." Although this paper does not take the reader through the steps and tools of a culture dig, organizations at any level would benefit from taking the hour or so necessary to step through the traces. The findings would be fascinating.

Aligning the Commands

If culture determines how work gets done in an organization, alignment provides the means for doing it. This process will help people achieve a shared understanding of the following:

- What they are trying to accomplish
- Why what they are doing is worthwhile
- How best to accomplish their objective

Alignment is like flying an airplane on final approach to a runway. It involves a constant series of corrections in airspeed, attitude, altitude, and heading to keep it on course. If the leadership sits back and watches what is happening, the aircraft drifts off course; if they make too many quick corrections,

the flight path is erratic and the barf bags come out.

Like an instrument approach with course and glide path parameters, alignment depends on two elements, vertical and horizontal. Vertical alignment focuses on how people deploy the organization's strategy. Proof of the pudding, the major metric in vertical alignment is how well the people in the unit execute their jobs and understand how they contribute to the larger strategy.

Horizontal alignment links customer requirements with the business processes. In the Armed Forces, the concept of customer can be somewhat foreign, but the fact is, everyone is someone's customer and everyone is someone's supplier. Understanding who is who is vital, and ensuring the right processes are in place to meet customer needs is the cornerstone of defense.

As mentioned, either vertical alignment or horizontal alignment alone is very important, but the key to a high-performing organization is bringing both into alignment with each other. An outstanding strategy with committed people is not very effective if the processes are broken or the product or service is going to the wrong customer. Likewise, the best product or service will not be as effective if the people and the strategy don't support it. When all four elements are in synch, the organization becomes self-aligning. The agility and flexibility of this phenomenon allows quicker decision space, faster reaction and greatly increased readiness.

So, how do the Commands become self-aligning, and how do they align with each other? It happens by concentrating on the main thing. The saying, "The main thing is to keep the main thing the main thing," should be a mantra at all levels. The main thing for the organization must be a common and galvanizing concept that resonates with every unit and each individual. Additionally, each person and every team must be able to see a direct relationship between what he or she or it does and this super ordinate goal. Finally, the main thing must be clear, easy to understand, consistent with the strategy of the organization, and actionable by every group and individual. Every organization, unit, and team should have a main thing. World class outfits do. In the business world, the main thing for Fed Ex is express, and for Wal-Mart, it is the box. For NORAD and USNORTHCOM, it is defense.

One very effective way to determine how well the people understand the main thing is to play elevator roulette. The next time you as a leader get on the elevator, ask the person next to you the following:

- What is this organization's strategy?
- What do you do?
- How does what you do support the strategy?
- How do you measure that?

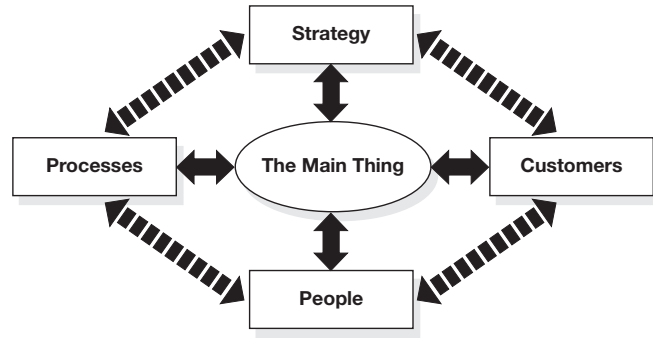


Figure 1. Vertical and Horizontal Alignment.³

³ Ibid.

The power of the elevator test will determine how well the word is getting out or it will drive more people to use the stairs. There is a process for determining the main thing, then deploying it through the Command. The first step in defining the main thing is to:

- Form a cross-functional team of people who represent the various facets of the area under consideration
- Conduct an open discussion of what’s important to that team’s work
- Narrow down the choices from the discussion
- Select the choice that generates the most support and is in line with the organizational strategy

Next comes the hard work, putting the strategy to work. The leadership and a few representatives of the loyal opposition should go away for a day or two and build the organization’s structure tree. See Figure 2. A structure tree begins with the main thing. The next column should be a list of four to six Critical Success Factors (CSF) that directly support the main thing. From there cascade stretch goals and activities. Analyzing the structure tree, it is fairly easy to identify core processes and process owners. See Figure 3. Additionally, the macro structure tree, developed at the directorate level, can be broken down into other trees for lower levels and greater detail.

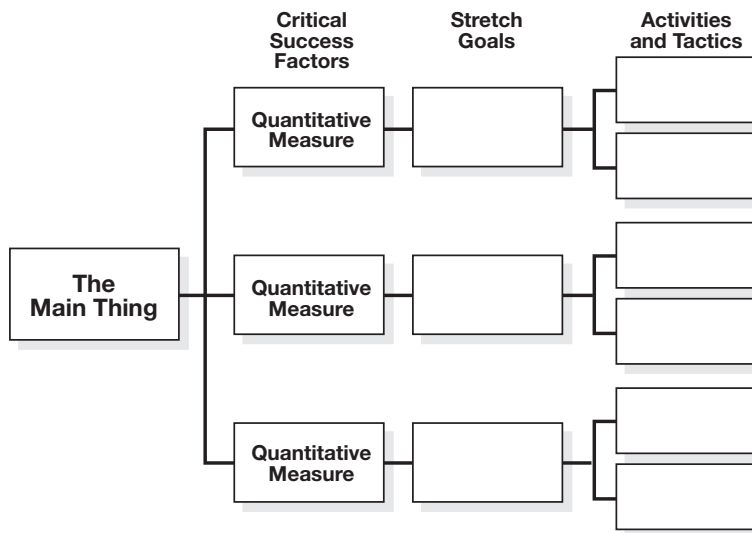


Figure 2. Structure Tree.⁴

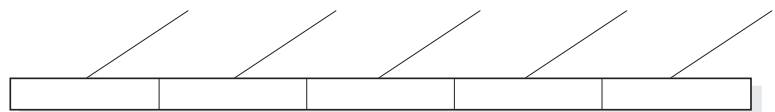


Figure 3. Processes and Process Owners.

Taking the Commands’ Visions and applying them to the structure tree, leaders can begin to develop a clear road map for the organizations. See NORAD Figure 4 and USNORTHCOM Figure 5. The vision statements⁵ can help fill in the blanks, CSF are core responsibilities which means to implement and become stretch goals; tactics and activities add detail; and process owners become accountable.

4. Ibid.
 5. <https://www.noradnorthcom.mil/Announcements/NORAD%20NORTHCOM%20Vision.pdf>.

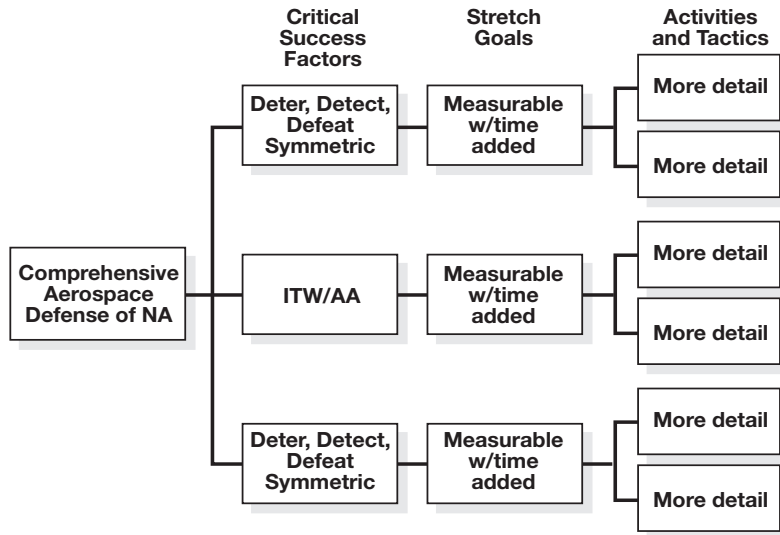


Figure 4. NORAD Structure Tree.

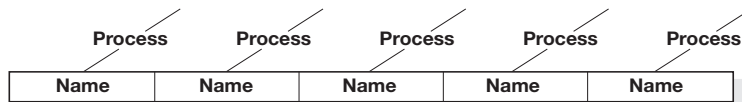
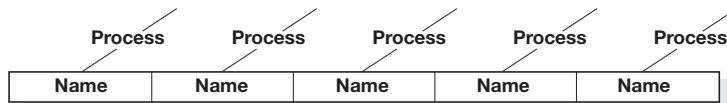
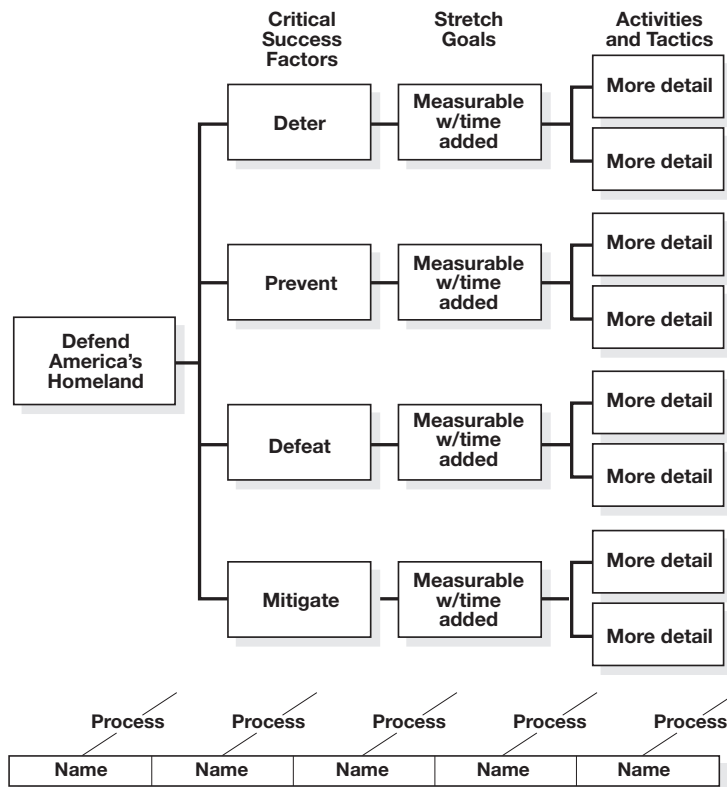


Figure 5. USNORTHCOM Structure Tree.



The Way Ahead

Once the two Commands' teams have developed their structure trees, a bi-command team should spend some time, a day or two analyzing their products and identifying the areas of agreement and the areas of disconnect. Once these are identified, the team can go to work capitalizing on the strengths and attacking the opportunities for improvement. For this, leaders need to set high performance

goals; increase their people's sense of ownership; strengthen accountability; and drive out fear of failure by expanding the performance zone.

For years, sports psychologists have known there is a connection between performance and fear of failure. Many times, fear causes people to be cautious and avoid risks, and this can keep them from stretching to higher levels of performance. To develop high performers, leaders need to encourage desire to achieve and reduce fear of failure at the same time. Fig. 6 shows this graphically.

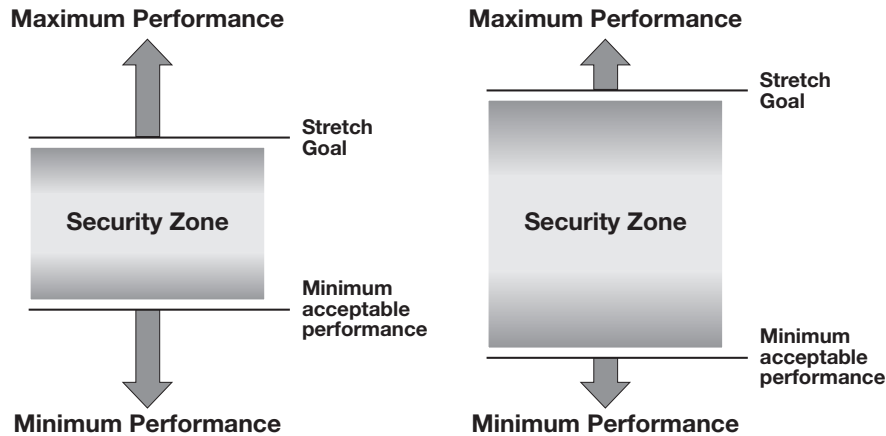


Figure 6. Performance Diagrams.⁶

Conclusion

NORAD and USNORTHCOM have a tremendous opportunity to work together. The Commands are very different, but they share the same task of protecting the homeland. Stated earlier, each Command believes it has the organizational truth, but the truth is we live in an ambiguous world, and it is important we get comfortable with ambiguity. Once again, it comes down to leadership to make the most of a potentially rich situation.

This paper has introduced the leadership issues associated with the culture and environment of the two strategic commands at Peterson Air Force Base, Colorado, and focused on opportunities for operational synergy and greater cooperation. By performing the culture digs, building the structure trees, and creating an environment for success. NORAD and USNORTHCOM will be even better prepared to perform their missions. What can you do with your organization?

About the Author

George P. “Rocky” Gaines is the Principal Functional Analyst, NORAD Strategy and Concepts, in the NORAD Plans, Policy and Strategy Directorate. He graduated from the Air Force Academy with a B.S. in Economics in 1968. He served as a forward air controller in Vietnam, Panama, Germany, and the United States, and as an area specialist in Latin America. Working at the highest national and multinational levels, he was directly involved with the development of U.S. military policy in both Latin America and Central Europe. Among his other accomplishments, he helped create the plan for U.S. military representation in Latin American capitols. He also served on the NATO staff in Heidelberg, Germany, where he wrote NATO war plans and air tasking orders for Central Europe, and participated in exercises designed to evaluate the suitability of those plans. He retired as Deputy Commander for Operations, 27th Fighter Wing. He holds an M.A. in Latin American Affairs from the University of Arizona and is a graduate of the Air War College.

6. Organizational Dynamics.

Knowledge Management: Harnessing Mental Capital for the Future

By
Lieutenant Colonel Phil Wilker (USA, retired)
and
Colonel Keith Snook (USA, retired)
United States Northern Command

In our great-grandfather's day, lessons were often taught by those who had hands-on experience and teaching was very often "see, learn, do". The successive generations would add their practical lessons and improve the process or procedure. These lessons were often written down in "How to" documents (explicit knowledge). However, this never captured true expertise, and subsequent lessons learned or experience (tacit knowledge) were even harder to capture and therefore never added. Because learning is a continual process, documenting knowledge is only a "snapshot in time".

In today's environment, we are more separated while at the same time connected by the computer. While computers enable us to stay in touch with our operations virtually from any location, they also separate us from the experts that really know what's going on. If you could sit and talk to your great-grandfather, eventually you would hear some gold nuggets that came from experience, yet were never written down. In industry, we know that the generation of the "baby boomers" is approaching retirement, and we will lose these experiences if we do not know how to capture them. In the government, and in the military, we need to harness the experience of our senior leaders.

Fundamentally, this is called knowledge management (KM). KM systematically brings together people, organizations and processes, enabled by technology to facilitate the exchange of operationally relevant information and expertise. It is a process whereby information is discovered, selected, organized, distilled, shared, developed and used in a social context to improve organizational effectiveness.

Knowledge management in conjunction with information management (IM), should provide an organizational framework to accumulate, create and disseminate actionable knowledge. That means take in the information, provide business rules for filtering and formulating it, put it in an understandable context, evaluate it through another set of business filters and then present knowledge to the organizational leadership to make or enhance a decision. Even while still in its infancy, the term KM already exists, is accepted, and currently used by many military institutions including those of several allies.

Knowledge is a commodity however, that must be managed effectively. Therefore, organizations must ensure they have a trained knowledge crew whose primary duties are to assist in this management. They should be involved in gathering and editing knowledge, paving the way for establishing effective knowledge sharing networks, and managing knowledge technology infrastructures. The knowledge crew should be made up of technicians as well as operators. They should identify and correct knowledge sharing seams and gaps, provide access to KM networks and technologies, establish procedures for knowledge retention, and implement metrics to measure the value of initiatives.

The goal of sharing knowledge is broader than situational awareness. It takes on a more holistic awareness and suggests knowing cultures, religions, economics, and building business filters through which to view knowledge. It is about answering the question: "So what"? Put in context, situational awareness can become knowledge, but must be filtered to suggest possible implications as it enables

decisions. We need to discover, capture and refine information to allow our leadership to make faster and better informed decisions.

KM is not IM in that IM is the collection, storage and control of information, but not the use of the information. KM enables acting on information and therefore uses the IM processes and adds synthesis, analysis, and presentation of information in a usable fashion for decision makers. For example it takes data, such as a map to add information like tomorrows weather forecast plotted on the map and then puts them into a usable context, “ tomorrow, based on the weather in the following areas we will only be able to use the following weapons systems.”

KM is also not just about technology. In this day and age, we expect too much from technology and continually look for the Nintendo that can also fix dinner. Several products in industry have been renamed KM tools, because KM is the current buzz word. This is not to say that these technologies do not enable decisions, but they fall short of making them and should. We should always depend on the human dimension to actually make decisions and we owe it to the decision maker to provide the best synthesized and analyzed information. This is also the goal of KM.

However, this is not an all inclusive list, KM reflects capturing data, cataloging expertise, realigning processes and changing cultures.

- **Capturing Data.** Lessons learned and after action reviews (explicit knowledge) are only useful if they are applied. Otherwise, they become lessons observed and mistakes repeated. In most cases, operators want to know if a situation occurred before, who did what, and if it worked or not. The problem is that there are no automatic means to search multiple libraries of Lessons Learned for specific data pertinent to a mission. This problem is part technology and part data organization. Content search capabilities enable search, but the data must be organized or metatagged to allow a comprehensive search. The search must be accompanied by processes and procedures that operators follow assisted by the knowledge crew.
- **Cataloging Expertise.** Since expertise is often tacit knowledge and not always captured by a job title. We need to be able to identify and catalog past experiences and special levels of expertise. Therefore, white pages or yellow pages need to be established that list the experience level of each individual in an organization. The pages need to be searchable to identify subject expert expertise. This specificity in tagging data to subjects will allow us to identify more available subject matter experts and capture their tacit knowledge.
- **Realigning Processes.** We need to create, capture, apply, and re-use knowledge to make better decisions faster. To achieve more optimum decisions, decision makers must have an understanding of what organizations know, what they do not know, and what they are doing about it. Even though there are pockets of expertise called subject matter experts and their expertise can be cataloged, there is collective wisdom in any organization as to what has been done, what has worked, or not and why. This collective wisdom or knowledge also needs to be captured and made available for future use.
- **Changing Cultures.** All the best intentions of identifying, assessing and analyzing information can be thwarted in the absence of a culture that supports, empowers, and rewards information sharing. Even though we have clear guidance and implications from Presidential directives that we need to evolve from a need to know to a need to share environment, there is still hesitation. If we believe that knowledge is power why do we hesitate to share that power? Clear rewards for sharing have not been established, and

empowerment has not been enacted, so we still preach the new culture, but do not practice it.

Many search capabilities for knowledge can be enabled by technology. However, processes must be established to identify, capture and leverage this knowledge. Knowledge crews must be formed to ensure knowledge is made available in a usable form and it gets presented to the right people. The organizational culture must (finally) be taken into consideration as to which decisions are critical for their purposes and the knowledge management structure designed to that end. This idea is the basis for the people, organization, process, and technology model, but the first step in an emerging concept such as knowledge management should be, "How much do I need?"

So where do we start the KM process? Within Department of Defense (DoD), there are documents that already capture the goals of KM. Many of these are included in the *Net-Centric Operational Environment Joint Integrating Concept*. This document clearly articulates the following:

Leaders retain their decision making responsibility. Nevertheless, collaboration can facilitate better planning and execution by enabling diverse mission partners to share mission objectives in ways which help synchronize the operation and task-organize it for optimal efficiency.

At North American Aerospace Defense Command (NORAD) and U.S. Northern Command (USNORTHCOM) our former J6, Vice Admiral Nancy Brown, (now the Joint Staff J6), started us on the path to effective KM. We are still maturing the required concepts, but our leadership understands the need and our current J6 Rear Admiral Card is keeping us on the right path. We are preparing to conduct surveys of the leadership and the staff to identify those areas of KM that might have the best short-term pay-off, while identifying mid and long term requirements. We have matured our information sharing environment consisting of people, processes, and collaborative tools and are off to a running start. Our information exchange broker concept leverages KM crew capabilities. We are moving forward with initiatives that should identify the low hanging fruit, yet keep us on track to develop a comprehensive KM program. We understand the additional technological capabilities that we need in the short term and are putting procedures and processes in place that will enable our command to manage our critical knowledge resources.

About the Authors

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Expanded Military Cooperation in the Western Hemisphere

By

George P. “Rocky” Gaines

North American Aerospace Defense Command

Introduction

Canada and the United States have been on an historic journey for over forth-eight years. For almost five decades, they have ensured the aerospace sovereignty of North America, and in May 2006, they expanded their efforts to maritime warning. Recognizing the broader global aspects of 21st Century threats, the two nations are also weighing possibilities for expanded membership in the North American Aerospace Defense Command (NORAD). Our leaders have repeatedly underscored the importance of international cooperation for homeland security, and the primary focus has been the asymmetric threat. At the same time, the United States finds itself at war. This wartime condition has, and will continue to have a strong effect on the entire neighborhood.

In the spirit of a neighborhood watch, the nations of our hemisphere have a great opportunity to create a set of new relationships that build on the strengths and benefit from the challenges of earlier times. By changing the lenses we have looked through for generations, we can develop processes and procedures to reduce the inter-domain, interagency and inter-modal gaps that currently exist in our defenses.

There are a number of ways to address these new relationships. Whichever approach we take must acknowledge all members as equal partners. In that light, this paper will review the strategic environment, look at some assumptions, and offer alternatives regarding how Canada, the United States and other neighbors might work together to improve military cooperation in the defense of our neighborhood.

Strategic Environment

At the end of the Cold War, we witnessed dramatic changes in the geostrategic environment which shifted the focus of North American aerospace defense. The traditional Cold War threat has altered, both in terms of the nations or groups that might choose to challenge North American security and the weapons that could be employed. Strategic arms reduction treaties and other arms control initiatives hold the promise of deep cuts in strategic ballistic missile nuclear forces. However, large residual nuclear arsenals capable of striking North America will still exist after programmed reductions are made. Meanwhile, other nations are covertly attempting to acquire nuclear-capable ballistic missiles and other weapons of mass destruction (WMD).

The terrorist attacks on September 11, 2001, represented another dramatic change in the geostrategic environment for North American security. The overall threat to the North American continent from the aerospace, space, land, sea, and cyber domains has greatly increased, and the proliferation of WMD and their delivery systems to state and non-state actors has emerged as a major security challenge. This evolution has introduced the threat of asymmetric activities that have the additional potential to affect the decision-making processes associated with the defense of North America. Additionally, the proliferation of cruise missile technology, unmanned aerial systems, and non-military air activity associated with drug trafficking and other illegal activities is of continuing concern.

Domestically, the overall volume of air traffic flowing daily to, from, and within our airspace will continue to expand and will dictate an even higher degree of coordination between our national airspace surveillance-and-control systems and their military components. The wide range of threats

to our continent coming from the seas and major waterways, plus the issue of cyber security will also pose significant problems. Finally, our vast and open borders will require both a closer level of cooperation between land forces and facilitation of military-to-military defense support to civil authorities.

Organization

Today, there are three strategic headquarters (HQ) immediately concerned with the defense of North America:

- NORAD a bi-national Canadian and the United States (CANUS) command
- Canada Command (CANADA COM) a Canadian only command
- United States Northern Command (USNORTHCOM) a U.S. only command

Any expansion of military cooperation with other nations must be considered carefully to ensure a clear understanding of responsibilities among all concerned.

The requirement for greater military cooperation is not in question. However, the extent of military cooperation and the form within which this expanded cooperation could take place remains a decision for the diplomats. Notwithstanding the governments' responsibility for the decision, negotiators will seek military input on potential constructs. Therefore, it is time to assess the options and distribution of current and future functions as they relate to multinational military cooperation. From a military perspective, the options can be broadly categorized as one of two general models: either alliance or a coalition.

- **Alliance Model.** This is based on a command and control structure established to fulfill an assigned mission, agreed to by the participating nations and operating under nation-to-nation authority. Similar to the North Atlantic Treaty Organization (NATO), this model permits additional nations to join as equal partners, and much like the spokes of a wheel, the execution of the defense mission is commanded at a designated strategic HQ. Again, as with the NATO, this structure does not limit individual nations from establishing arrangements outside of the construct; and while the day-to-day maintenance of this model is demanding, its strength is in the on-going attention to interoperability and in the default response position of being a known quantity and commitment. Additionally, this default is packaged as an alliance response, consequently, political issues surrounding perceptions of one nation's forces being under command of another are greatly reduced. A command and control construct, which would build on the existing NORAD model, to include multiple domains and permit additional nations to join, is clearly along the lines of the alliance model.
- **Coalition Model.** This military-to-military model is based on existing national command and control constructs and assigned a defense mission in addition to existing unilateral responsibilities. Participants adhere to a common goal, but rather than a standing centralized command structure, they build upon consensus in procedures and methods. This would maximize national flexibility and would represent a relatively small increase in resources, infrastructure and staff effort over existing national requirements. However, there would be a potential risk that over time, the more frequent and pressing national interest activities could limit the dedication of staff effort and resources to the maintenance of interoperability. As with previous examples of international coalitions, without a single defined command organization, when a requirement for action surfaces, one nation typically must step up as the lead. While this permits a rapid and focused ramp up of capability by one nation, given the consensus nature of coalitions, it would likely require significant political and military staff effort by the lead nation to confirm the involvement and level of commitment of the other nation(s). The optics of having a lead nation could bring with it

the potential perception of subordination of forces that may have a negative influence on participation due to sovereignty concerns. In the end, under a coalition model, the price of relatively unencumbered relationships in support of a common aim is a spike in staff activity to confirm government commitment in the relatively short lead time prior to a critical event or crisis. The organizational proposals discussed in this paper lie along the spectrum between the two models.

Assumptions

In examining options for increasing military cooperation for the defense of North America, a number of assumptions come into play:

- An attack on one country is an attack on the others
- Nations believe it is advisable to expand military-to-military cooperation
- Enhanced military cooperation will increase layered defenses of all nations
- Gaps exist today among the land, maritime, aerospace, space and cyber domains
- Reducing or minimizing the impact of seams along borders and between domains will improve the defense and security of all nations
- Increasing decision time will provide more time to respond to threats
- Nation-to-nation agreements are more effective than military-to-military agreements
- Current policies do not prevent expansion of military cooperation
- It is possible to leverage existing command and control for expanded missions
- Laws do not prevent multi-domain commands for homeland defense (HLD)
- Other nations' politicians' perceptions of cooperation with U.S. military forces will present a challenge to enhanced military cooperation
- Canadian military forces may provide a successful conduit for enhanced military cooperation with other nations

Analysis

These are key factors in describing and commenting on the organizational constructs presented in this paper:

- Unity of command and command and control
- Gaps and seams
- Responsiveness
- Ease of implementation
- Potential for multinational expansion
- Resources
- Diplomatic impact
- Intelligence and information sharing

The diagram below represents where the potential organizations would fall on a notional continuum which ranges from a pure multi-lateral construct (coalition model), where the current multinational HQ (NORAD) functions and expanded domain roles would be assumed by national command HQs, to a single, multi-domain multinational HQ construct (alliance model).

Under this construct existing NORAD functions and any increased military cooperation would be executed through national commands. This would result in decentralized control and execution across all domains by the national HQs multilateral, compared to the centralized control and execution which would exist under a single multinational HQ construct.

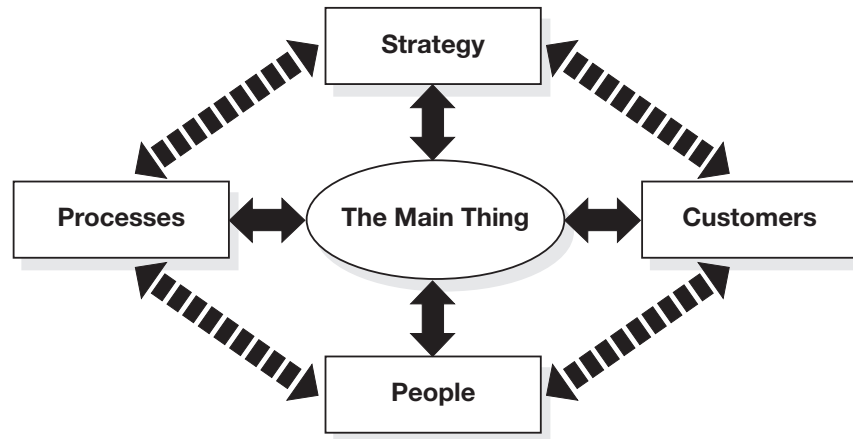


Figure 1. Canada Command and Other USNORTHCOM Assume Multi-domain Responsibilities.

As this construct augments the mission of existing strategic and operational level organizations, the unity of command across domains within each country remains strong. However, there is the potential for continued cross border, cross command seams due to the lack of a single command authority focused on the coordination of multinational strategy, procedures, plans, doctrine, and policies. An additional organization would likely be required to exercise oversight or coordination responsibility for these areas to avoid the risk that, with three (or more) commands, issues will remain locked in consensus building rather than move efficiently through a command decision process.

A sub-option, which could address the coordination requirement identified above, would be to have NORAD, as part of the transfer of its functions, transition into a multinational oversight and advisory group with a mandate developed from the earlier Bi-national Planning Group (BPG)¹ tasks. This organization could report to an external multinational political and military body such as the Permanent Joint Board on Defense (PJBD)². While likely not in the direct chain of command of any command, this advisory group would be responsive to all for the development and maintenance of strategy, policies, doctrine, operational plans, etc. In terms of structure, it could be built along the lines of a NORAD Joint Staff 5 (J5) (Plans) organization; and although not of a size that would warrant a full J-staff, augmentation by J2 (Intelligence), J6 (C3) and J7 (Training and Exercises)

1. At the request of the Minister of Foreign Affairs Canada and the United States Secretary of State, the BPG was created to address the future of Canada and United States cooperation in broadening bi-national arrangements for North American Security. Specifically, the BPG was tasked to examine the following areas:

- Conduct reviews of all existing Canada and United States plans and military assistance protocols with a view toward improving North American land and maritime as well as potential new mechanisms for improving military support to civil agencies in time of major emergencies in both Canada and the United States.
- Prepare bi-national contingency plans to respond to threats, attacks, and other major emergencies in Canada or the United States, in accordance with the United States Joint Operation Planning and Execution System and the Canadian Forces Operational Planning Process.
- Maintain awareness of emerging situations through maritime surveillance activities. Share intelligence and operational information in accordance with national laws, policies, and directives under the auspices of intelligence arrangements between the Department of State and National Defense Headquarters. This shall include assessment of maritime threats,

would be required to provide the necessary expertise to tackle issues of multinational information sharing, interoperability, training, and exercises.

While the national response by a participating nation is not hampered by this construct, and may in fact be improved by access to increased cross-domain multinational information and intelligence, timely and effective combined and joint response may be more difficult. Collective response procedures would need to be established to minimize the time required to stand up a multinational response to a threat, and it would likely be necessary to have subordinate operational commands pre-designated with the standing task of assuming a Combined and Joint Task Force (CJTF) command role to avoid having to resort to last minute ad hoc response C2 arrangements. With respect to military advice to the multinational government decision-making body, there would be potential for blurring of multinational and national advice.

Transitioning NORAD functions to national commands would be a significant challenge. Notwithstanding the bureaucratic effort of splitting the sunk costs of the NORAD infrastructure, there would be the technical requirement of terminating existing feeds within the CANADA COM and USNORTHCOM infrastructure and then re-connecting them for a shared multinational coordinated picture. Response by NORAD regions should not change since these are layered on top of national operational organizations. The challenge would be in achieving in the national commands the same level of fidelity in the common operating picture that exists in NORAD. These procedures and level of functionality would of course have to be established in other domains as well.

This construct would allow for additional countries to participate. The difficulty would be with the ability of any future participating nation to interoperate with CANADA COM and USNORTHCOM at the strategic and operational levels. Because there would not be an existing HQ that future nations could join, it would be incumbent upon any joining nation to revamp or develop its national military structure to accommodate the information gathering and decision-making processes that exist at

1. (Continued)

- incidents, and emergencies to advise and/or warn both governments.
- BPG will focus its maritime assessments and warnings to those threats that could affect both the United States and Canada.
 - BPG shall develop mechanisms and protocols to advise and/or warn both governments.
 - Design and participate in exercises.
 - Plan and participate in joint training programs.
 - Validate plans prior to approval.
 - Establish appropriate coordination mechanisms with relevant Canadian and United States federal agencies. [BPG interactions with United States civilian agencies shall be coordinated through the Office of the Secretary via the Joint Staff Strategic Plans and Policy Directorate (J-5). Interaction with Canadian civilian agencies shall be coordinated through the Deputy Chief of Defense Staff.]

2. The Permanent Joint Board on Defense was created by Canada and the United States in 1940. The PJBD is the senior advisory body on continental defense. It is composed of military and diplomatic representatives from both nations. The Board has examined virtually every important joint defense measure undertaken since the end of the Second World War, including construction of the Distant Early Warning Line of radars, the creation of the North American Air (later Aerospace) Defense command in 1958, and the bi-national operation of the underwater acoustic surveillance system and high-frequency direction-finding network.

Purpose and Function

The PJBD has served as a strategic-level military board charged with considering, in a broad sense, land, sea, air, and space issues, including personnel and materiel dimensions involved in the defense of the northern half of the Western Hemisphere. The scope of the PJBD's work also encompasses policy, operations financial, logistics, and other aspects of Canada and U.S. defense relations. Bilateral defense recommendations are forwarded to respective heads of the government or appropriate officials for consideration.

Importance to Defense and Security

In recent years, the Board has proven effective as an alternate channel of communication, one through which the resolution of difficult issues has been expedited. In particular, it has helped devise imaginative solutions to the types of problems encountered by both countries, such as cost-sharing in an era of declining budgets.

Meetings

PJBD meetings are normally held semi-annually with meeting locations alternating between Canada and the United States. The meetings are co-chaired by a Canadian and an American chairperson with much of the substantive work being carried out by senior military and civilian representatives of the respective military and political organizations of each country; including the United States' Departments of State, Canada's Department of National Defence and the Department of Foreign Affairs.

the time between the coalition commands. This could be an impediment, based on the level of modernization of potential participating nations.

Any possible resource savings associated with dissolving the NORAD command structure would likely be offset in increases in the multinational facilities to accommodate the transferred responsibilities. In terms of personnel, this may actually result in a slight increase because of likely duplication of some functions previously performed by NORAD on behalf of both countries. The requirement for exchange personnel in the commands should be considered a common consequence for all organizational constructs.

From a diplomatic perspective there is a risk that the resulting break-up of NORAD would overshadow any message purporting that there is a commitment to expanded military cooperation. Despite assurances that NORAD functions would continue, NORAD, as an institution, currently represents CANUS cooperation on bi-national defense and, as such it would likely be very difficult to portray its being dissolved as a step towards improving those efforts.

Information and intelligence sharing are key components of improving both national and multinational response to potential threats. It would likely be the responsibility of each HQ to coordinate information and intelligence gathering from within their respective national intelligence and public security organizations for subsequent sharing. Addressing releasability issues may be more difficult under this construct because there would be no single voice advocating the need for improved info sharing as being key to mission accomplishment. The commands would have to establish technical means to incorporate and analyze information from their respective sources. In addition, pipelines would need to be established for the flow of information between the HQs. Equally important as the technical aspect is the requirement for exchange personnel in each nation's HQ to oversee, advise and assist in decision-making resulting from the intelligence and information being shared.

Multi-domain Warning and Surveillance Combined and Joint Task Force

In this instance the national commands would have the responsibility for NORAD response functions and any future increased military cooperation. This arrangement would result in decentralized, multilateral control and execution across all domains executed by the national HQs. NORAD would transition to a supporting command, an enabler for the others by providing multinational intelligence and information fusion executed through an enhancement of the NORAD and USNORTHCOM Command Center (N2C2), the eyes and ears of North American aerospace defense, and the follow-on to the Cheyenne Mountain Operations Center.

Because this construct augments the mission of existing strategic and operational level organizations, the unity of command across domains within each country remains strong. However, there is again the potential for continued cross border seams due to a lack of a single command authority focused on the coordination of multinational strategy, procedures, plans doctrine and policies. To address this, the combined and joint task force (CJTF) could also be tasked with multinational oversight and advisory responsibilities with a mandate developed along the lines of the old BPG tasks. As in the previous example, this organization would likely report to an external political and military body such as the PJBD on multinational issues of strategy, policies, doctrine, operational plans, etc. Given this political aspect of multinational responsibility as well as the operational missions of warning and surveillance, the command relationship would be complex. To support the multinational response commitment of the national commands, the CJTF would need to be in the direct chain of command of all commands, but on the other multinational matters the CJTF would only be responsive to them. As such it would probably merit consideration to have the CJTF assigned the status of a multinational command, albeit likely not on a par with the parent commands. Given that response would no longer

be a function of the CJTF, there should be greater latitude for the commander to be a Canadian, U.S. or other officer.

While the national response by a participating nation is not hampered by this construct, and it may, again, be improved by access to increased cross-domain multinational information and intelligence, timely and effective combined and joint response might be more difficult. As before, collective response procedures would be necessary to minimize the time required to stand up a multinational response to a threat, and it would also be important to have subordinate operational commands pre-designated with the standing response task of assuming a CJTF command role to avoid having to resort to last minute ad hoc response C2 arrangements. As above, with respect to military advice to the multinational government decision-making body, there is the potential for a blurring of multinational and national advice.

This construct avoids the majority of difficulties associated with transitioning all of the NORAD functions to other commands because the majority of the sunk costs in infrastructure, procedures and the technical aspects of data fusion resident in the N2C2 would be retained and incorporated into other domain areas. The challenge would be achieving the same level of coordinated picture in these other domains that currently exists in the aerospace domain.

This construct would allow additional countries to participate. However, as stated earlier, the difficulty would be with the ability to interoperate and respond with CANADA COM and USNORTHCOM at the strategic and operational levels. Since there would not be a single stand-alone HQ that future nations could join or share in, it would be incumbent upon any joining nation to revamp or develop its national military structure to accommodate the information and decision-making processes that exist at the time between or among other members. Additionally, any future nation would have to be comfortable with the concept of a separate organization providing them their warning and surveillance picture. Similarly, there would need to be a high degree of confidence within the member commands and the CJTF that any future nation could provide the level of information and contribution that would ensure the expanded collective defense responsibility. These requirements could be an impediment based on the level of modernization and capabilities of a future potential participating nation.

In terms of structure, the CJTF could be built around the existing N2C2 operational and support organization, with augmented J3 (Operations) and J5 functionality, as well as incorporation of the existing J2 Fusion Center to address the additional resource implications of expansion into other domains. From a diplomatic perspective this construct could deflect to some degree the potential negative reaction to the perceived dissolution of NORAD. However, it is unlikely to be effective in portraying the result as anything less than a significant scaling back of NORAD.

From a conceptual perspective the crux of this construct is the information and intelligence architecture. While info sharing is the key component to improving both national and multinational response to potential threats it is unlikely that CANADA COM, USNORTHCOM or another command would abdicate the task and responsibility of coordinating information and intelligence gathering from within their respective national intelligence and public security organizations for subsequent sharing, as authorized. In a perfect world, this concept would have all sources, irrespective of nationality, providing data into the CJTF Fusion Center for analysis and subsequent display and correlation for use by the commands, relieving these organizations of the requirement of this fusion function. However, given security concerns regarding sources, which remain key to the Fusion Center's ability to establish a confidence level of information, as well as the likely desire to have national assessments to either confirm the multinational assessment or in support of unilateral action, it is likely that all commands would retain similar functionality to that envisioned for the CJTF. While this is achievable,

with USNORTHCOM likely continuing to use the existing NORAD and USNORTHCOM J2 Fusion Center, there may be issues with substantiating the value added of the CJTF function. It could be argued that the same common operating and intelligence picture could be achieved through exchange officers and improved sharing protocols between the respective operations and intelligence organizations in CANADA COM, USNORTHCOM and other nations' commands rather than routing through another player, the CJTF.

Split Domain Responsibility

Under this construct there would be no change to the existing NORAD functions, and any increased military cooperation would be executed through CANADA COM, USNORTHCOM and other commands. This would result in centralized, multinational command and decentralized execution in the aerospace domain (aerospace warning and aerospace control) and multi and bi-national maritime warning by NORAD and decentralized multi-lateral warning and execution in other domains executed by the other commands.

This option would require a high level of coordination between the strategic commands, both to prevent exploitation of seams from a lack of unity of command across all domains and to ensure a common operational picture. The current high level of responsiveness in the aerospace domain is retained. Given that national structures in the other domains would be retained, individual national responsiveness would not be adversely affected. Once more, collective procedures would need to be established to minimize the time required to stand up a multinational response to any threat other than one uniquely in the aerospace domain, and it would likely be necessary to have subordinate operational commands pre-designated with the standing task of assuming a CJTF command role to avoid having to resort to last minute ad hoc response C2 arrangements. Additionally, there would be the potential for conflicting or at least uncoordinated military advice to the multinational government decision-making body as different views could be presented regarding multinational response based on the national or domain responsibilities of the strategic-level organizations.

This construct would expand upon existing or planned command domain mission areas in the nations' commands, to include a multinational responsibility, and does not change the NORAD mission substantively, it would likely be relatively easy to implement. However, with the strategic-level HQs all having responsibility for some aspect of multinational defense, there would again be a requirement to establish one of the HQs or a separate body as the lead organization for common multinational defense policies, plans, cross-domain coordination in operations, info-sharing and intelligence, etc. This construct would be a useful intermediate step should there be a desire in the future to reduce the number of strategic HQs or to combine domains by transitioning the existing NORAD functions to CANADA COM, USNORTHCOM and other commands.

There could be a level of difficulty in incorporating additional nations, as it would require them to interject into two different structural C2 models, one for the aerospace domain and multi and bi-national maritime warning, and another for the remaining domains, each with different operating methods. Additional resources should be relatively limited as there would be little or no infrastructure increase. There may be a small increase in personnel to address the requirement for exchange officers in the various strategic-level commands and potentially at the operational level by domain.

From a diplomatic perspective this would represent an increase in North American cooperation without appearing to sacrifice sovereignty and flexibility of action by national forces and yet retains the NORAD institution which enjoys various levels of public support. Notwithstanding the split of domain responsibility between the commands, there would be a requirement for similar if not the same level of intelligence and information support to assist in the effort to minimize potential cross domain vulnerability. CANADA COM, USNORTHCOM and other commands would likely

retain responsibility for coordinating national defense and other agency inputs. Similarly, this data or the resultant assessments are vital to a multinational common understanding of the strategic and operational picture, and as a result, needs to be shared with NORAD for the execution of the aerospace domain and maritime warning missions between the other commands for the other domains. To this end, given the geographic collocation of NORAD and USNORTHCOM there are efficiencies in considering an expanded combined Intel Fusion Center which would include representation by all commands to effect and oversee efficient transmission of intelligence products. There would likely be additional requirements for national representation at the equivalent intelligence centers.

Separate Multinational Domain Commands

Under this construct, there would be no change to the existing NORAD HQ or functions, and any increased military cooperation would be addressed by domain-specific command organizations. In this construct, similar to the undertaking in the aerospace domain initiated forty-eight years ago with the stand-up of NORAD; a multinational strategic-level HQ would be established for warning and control in other domains. This would result in centralized, multinational command and decentralized execution within each domain.

This would provide for a strong unity of command within the domains but would not address the cross-domain seam issue. This construct would require a high level of coordination between the multinational strategic domain commands to prevent exploitation of seams due to the lack of unity of command across all domains and to ensure a common operational picture. Assuming that national operational structures across other domains would be retained, individual national responsiveness is not adversely affected. Collective response procedures would need to be established for each domain and across domains to minimize the time required to stand up a multinational response. Additionally, there is the potential for conflicting or at least uncoordinated military advice to the multinational government decision-making body as different views could be presented regarding multinational response based on the domain responsibilities of the strategic-level organizations.

This construct would be expensive to implement in terms of acquiring infrastructure and identifying numbers of suitable personnel to man additional HQs. It would provide a framework within which future participating nations could easily be inserted, it would likely represent a significant personnel commitment and challenge to achieve appropriate representation within each domain HQs. From a diplomatic perspective, while this could be portrayed as an increase in CANUS cooperation, it has the potential to be perceived as sacrificing sovereignty and flexibility of action by national forces and impinging on responsibilities of existing national strategic or operational level commands.

Notwithstanding the split of responsibility along strategic multinational domain lines there would be a requirement for similar if not the same level of intelligence and information support at each domain HQ to assist in the effort to minimize potential cross domain vulnerability. All commands would of course require this same level of information and intelligence, if not slightly more due to their responsibility for unilateral action and would likely retain responsibility for coordinating their respective national defense and other agency inputs. As such with the increase in number of users and contributors, the complexity and cost of establishing infrastructures and pipelines to handle and coordinate the necessary data would increase significantly as would the requirement for exchange personnel in each of the intelligence centers.

Multi-domain and Combined and Joint Interagency Task Force

This construct would see the stand up of an organization responsible for multinational defense and security across all domains with all national commands retaining responsibility for multi-lateral response. A sub-option could be developed wherein NORAD remains unchanged operating in parallel

with the other commands for the combined and joint interagency task force (CJIATF). This would result in centralized, multinational command and decentralized execution across all domains.

There would be a high degree of unity of command as this provides for a single point-of-contact for all governments regarding multinational defense and security issues although there would likely be significant discussion as to whether or not it would or should be military commanded or civilian led. Additionally, this construct deals very effectively with inter-domain, inter-modal, cross-border gaps and seams. This approach helps increase effectiveness in gray areas of homeland defense and homeland security (HLS) initiatives. Should NORAD not be subsumed there would of course be an issue with a seam for the aerospace domain and bi-national maritime warning, as well as the potential for conflicting or at least uncoordinated advice to the multinational government decision-making body as different views could be presented regarding multinational response based on domain responsibilities.

Implementation would face significant challenges, as it would require the creation of a new organization, requiring manpower commitments from a variety of interagency organizations from both countries in order to function. Procedures, policies, doctrine and plans would likely be considerably more difficult to develop and implement due to differing operational cultures. Given the necessary intertwining of defense and security related organizations in the command aspect of this construct, the incorporation of additional nations may be hampered by real or perceived security concerns of the equivalent organizations in those countries.

Diplomatically, this approach would reflect a significant commitment to the protection of all nations. Assignment of forces would be problematic but again would likely require a system of tasking forces through dual-hatting existing operational command structures. Establishing an organization this large in terms of size and scope would require clear, well-defined conditions and limits of authority to act particularly in light of the blending of law enforcement and defense capabilities.

As opposed to earlier organizational concepts where national defense and interagency intelligence feeds would come into national HQ, this construct would likely have the feeds directly into its intelligence center, coordinated by and through the representative agency for subsequent analysis. While the strength of this structure lies in its ability to incorporate this wide spectrum of data it might also be its failing in that the wide attendant audience, and perceived vulnerability that it represents, may cause individual organizations to increase their releasability requirements such that usable information is denied to the organization.

Single Multinational and Multi-domain Command

This option would create an organization responsible for multinational defense and security, including multi-lateral response across all domains, providing centralized, multinational command and execution. Again, there would be a high degree of unity of command through a single point of contact for both governments regarding multinational defense and security issues. Additionally, this constructs effectively addresses inter-domain, inter-modal, cross-border gaps and seams. Implementation would not require the creation of a new organization, but would need manpower commitments from a variety of interagency organizations from both countries in order to function. Procedures, policies, doctrine and plans would also require dealing with different operational cultures.

Given the intertwining of defense and security related organizations under a military commander, the real or perceived security concerns caused by the incorporation of additional nations may be less difficult. Diplomatically, this approach would also reflect a significant commitment to the protection of all nations. Assignment of forces would be similar to that process used today. As opposed to earlier organizational concepts where national defense and interagency intelligence feeds would

come into national HQ, this construct would likely have the feeds directly into its intelligence center, coordinated by and through the representative agency for subsequent analysis.

Conclusions

It appears there is political will in Canada and the United States to expand military cooperation to other nations to improve the defense of North America. The vision of how best to achieve this remains undetermined. There is a broad scope and variety of achievable options, some of which have been discussed in this paper; and while each could be effectively implemented, it remains for the militaries of our countries to ensure that their advice adheres to the common basic principles of unity of command, economy of resources and military effectiveness such that political expediences do not rule the day during the diplomatic negotiations.

About the Author

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The United States and Mexico Enhanced Military Cooperation

By
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This article identifies synergies between Mexico and the United States and potential areas of cooperation using the instruments of national power. The U.S. Joint Warfare of the Armed Forces focus on analyzing relationships among countries using instruments of national power, to include diplomatic, informational, military and economic. These instruments of national power are used in this article to describe the current and potential relationship between Mexico and the United States. In so doing, the reader will recognize that the economic instrument supports and is supported by the other three instruments of power. After describing our relationship using the instruments of national power, this article concludes with a way ahead to enhance military cooperation.

Background

The Japanese attack on December 7, 1941 at Pearl Harbor was one of the defining moments in United States' history leading to a declaration of war against the Axis Powers. Canada declared war against Japan, and Mexico broke off relationships with the Axis, stopping short that year of a declaration of war. However, after numerous Axis submarine attacks on Mexican ships, and the sinking of a Mexican oil tanker, the *Potero de Llano*, in June 1942, Mexico declared war against the Axis. The war led to greater trade, with Mexican oil fueling the U.S. war machine; and it led to significantly enhanced military cooperation for mutual defense of North America. This cooperation resulted in the training of Mexican fighter pilots in the United States, and the creation of a Mexican P-47 Thunderbolt fighter squadron nicknamed "The Aztec Eagles." The 201st Mexican Fighter Squadron of the Fuerza Aerea Expedicionaria Mexicana of the Mexican Expeditionary Air Force (MEAF) flew fighters providing close air support for U.S. forces in the Philippines, resulting in the defeat of the Japanese in 1945.¹ This represented one of the most successful international military education and training (IMET) partnerships in the history of United States and Mexico relations.

Security for the Western Hemisphere was further enhanced through the Inter-American Reciprocal Defense Treaty (Rio Treaty) when it was established in 1947. Members pledged to defend one another from external attacks. The United States and Mexico did not continue the close collaboration as during World War II; but, homeland defense (HLD)² and homeland security (HLS)³ once again became top priorities for both governments in the aftermath of the September 11, 2001 attacks.⁴ As such, on 23 March 2005, Canada, Mexico and the United States became partners via the Security and

1. Flores, Santiago A. *Liberation of the Phillipines*, obtained on Feb 14, 2007 from: <http://www.neta.com/~1stbooks/unit10flores.htm>.

Lenchek, Shep. *Mexico - Forgotten World War II Ally*, from http://www.mexconnect.com/mex_/travel/slenchek/slmexicoww2.html.

2. Homeland Defense (HLD). The protection of the United States sovereignty, territory, domestic population, and critical infrastructure against external threats and aggression or other threats as directed by the President. The United States Department of Defense is responsible for homeland defense including missions such as domestic air defense. The Department recognizes that threats planned or inspired by "external" actors may materialize internally. The reference to "external threats" does not limit where or how attacks could be planned and executed. The Department is prepared to conduct homeland defense missions whenever the President, exercising his constitutional authority as Commander in Chief, authorizes military actions. Joint Publication 3-26 (JP 3-26) Joint Doctrine for Homeland Security dated August 2, 2005, page GL-9, and approved for inclusion in the next edition of JP 1-02.

3. Homeland Security (HLS). Homeland security, as defined in the *National Strategy for Homeland Security*, is a concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur. The Department of Defense contributes to homeland security through its military missions overseas, homeland defense, and support to civil authorities. Joint Publication 3-26 (JP 3-26) *Joint Doctrine for Homeland Security* dated August 2, 2005, page GL-9, and approved for inclusion in the next edition of JP 1-02.

4. Prioritized by the *Security and Prosperity Partnership for North America* (SPP), the *National Security Strategy of the United States of America*, and the *U.S. National Strategy for Homeland Security*, July 2002.

Prosperity Partnership of North America, demonstrating multi-lateral cooperation for the economic prosperity, freedom and the safety and well being of our people.

The United States and Mexico are sovereign nations with separate and distinct national identities; hence, there will always be a vocal minority that expresses concerns about national sovereignty and what it means to different groups of people. Sovereignty is the supreme authority within a territory,⁵ and as used herein, “it implies a state’s lawful control over its territory generally to the exclusion of other states, authority to govern in that territory and authority to apply law there.”⁶ Hence, as two sovereign powers, the governments of the United States and Mexico have the authority to make war or peace, to form treaties of alliance or commerce with foreign nations and maintain control over their territories.⁷ In so doing, military operations are merely one part of an overall strategy to focus all of the elements of national power.⁸ This paper conveys a continental perspective that simultaneously respects sovereignty and provides greater safety for the people of both nations.

The United States and Mexico Instruments of National Power

A thorough comparison of two nations would require several hundred pages. This comparison is focused upon four instruments of national power⁹ including;

- **Economic.** The economic instrument of power refers to a strong domestic and international economy, with free access to global markets, resulting in the improved general welfare of our people. It serves as the guarantor of our strong national defenses.
- **Diplomatic.** The diplomatic instrument of national power is the principal instrument of engagement between the United States and Mexico, as well as the principal instrument for the United States or Mexico engagement with other states and foreign groups.
- **Informational.** The informational instrument of national power is diffuse and complex, as most information is exchanged freely across our shared borders with few government controls.
- **Military.** The military instrument of power is used in support of the diplomatic or economic instruments of power, but typically as a last resort. The range of military operations span from civil support,¹⁰ consequence management,¹¹ peacekeeping operations, and low intensity

5. *Stanford Encyclopedia of Philosophy*, available at <http://plato.stanford.edu/entries/sovereignty/#1>.

6. *Black’s Law Dictionary*, 6th Edition, available at <http://www.hawaii-nation.org/sovereignty.html>.

7. Joseph McMillan, Senior Research Fellow, Institute for National Strategic Studies, Sovereign Rights and Sovereign Responsibilities: Self Defense in an Age of Apocalyptic Terrorism, speech delivered to the Pontifical Gregorian University conference “Revitalizing International Law to Meet the Challenge of Terrorism,” April 22, 2004. McMillan identifies that sovereign states have a duty to suppress terrorist groups operating on their soil, as reinforced by the United Nations Security Council Resolution 1373, which requires states to suppress terrorist financial and recruiting activities, block the supply of arms to them, provide warning to other governments of possible terrorist attacks, deny the provision of safe haven, prevent the movement of terrorists between countries, pursue criminal proceedings against them and to prevent the use of their territories for terrorism against other countries. Available at http://www.ndu.edu/inss/research/inss_research.htm.

8. Joint Publication 3-26 (JP 3-26) *Joint Doctrine for Homeland Security*, dated August 2, 2005. Joint Publication 3-16 (JP 3-16) *Joint Doctrine for Multinational Operations*, dated April 5, 2000, page 1-3.

9. United States Joint Publication-1 (JP-1), *Joint Warfare of the Armed Forces*, dated November 14, 2000, and the JP-3-26, *Homeland Security*, dated August 2, 2005, emphasize the need to synchronize and integrate all instruments of national power. JWFC Doctrine Pam 4, *Doctrinal Implications of Operational Net Assessment*, dated February 24, 2004, states that “effects based operations (EBO) are actions that change the state of a system to achieve directed policy aims using the integrated action of the diplomatic, informational, military, and economic (DIME) instruments of national power,” obtained January 28, 2007, from: http://www.dtic.mil/doctrine/jwfc_pam.htm.

10. Civil Support (CS). Defense support to United States civil authorities for domestic emergencies, and for designated law enforcement and other activities. Approved for inclusion in the next edition of JP 1-20.) Per Joint Publication 3-26 (JP-3-26) *Joint Doctrine for Homeland Security*, August 2, 2005, defense support of civil authorities (DSCA) is a new term that is not yet approved for inclusion of DoD policy, therefore, civil support is still used as an overarching term [JP 326 page ii.]

11. Per joint Publication 3-26 (JP-3-26) *Joint Doctrine for Homeland Security*, dated August 2, 2005, consequence management is defined as actions taken to maintain or restore essential services and manage and mitigate problems resulting from disasters and catastrophes, including natural, man made, or terrorist incidents.

conflict to major combat operations. The the United States and Mexico military forces train for similar operations across the full range of defense and security missions.¹²

Synchronization of these instruments of national power is required to ensure the successful execution of our HLS/HLD missions.¹³ If the instruments are used in concert with each other and in cooperation with other nations, then the result is an exponentially stronger, faster and more effective means to address critical events. Therefore, the United States and Mexico must develop mechanisms or coordinating bodies that will enable us to plan for and practice using instruments of national power in concert with one another. Both nations will benefit from the synergies that arise from doing so.¹⁴ These four instruments are discussed in greater detail below. Since our intertwined economy is the primary driver for our mutual cooperation, it will be addressed first.

Economic Instrument of Power

The North American Free Trade Agreement (NAFTA) has shown that competition and open capital markets foster innovation, productivity and economic growth. All of which are essential for improving the living standards of our citizens over time. Our unique economic relationship has evolved over the past decade, in part due to an inextricably linked infrastructure, which has shaped our current interests in security and defense.

The United States and Mexico have separate and distinct national centers of gravity. From a bilateral perspective the North American economy and related critical infrastructure is a shared center of gravity that must be defended to preserve our ways of life.¹⁵ This continental view of defense and security issues became increasingly important after Mexico, the United States, and Canada implemented NAFTA, which eliminated tariffs and removed many of the non-tariff barriers, such as import licenses.¹⁶ This agreement resulted in increased trade that is now in the range of \$800 to \$840 million United States Dollar (USD) per day between the United States and Mexico.¹⁷

Security measures and concerns about further terrorist attacks resulted in a short-term recession that adversely impacted on our economies, shown in Figure 1.¹⁸ This short-term decline in trade started in 2001 and continued through 2003, with substantial recovery in 2005 and 2006, making it clear that an attack on one nation affects not just the defense and security of that nation, but also the economic well-being of trading partners. Closing the shared border to legal trade had dramatic consequences for both of our economies; we must therefore plan to ensure this does not happen again. In recent years almost 85 percent of Mexico's exports go to the United States, making the Mexican

12. Per *United States National Strategy for Homeland Security*, July 2002, the military contributes to homeland security through its missions overseas, homeland defense, and support to civil authorities.

13. Joint Publication 3-26 (JP-3-26) *Joint Doctrine for Homeland Security*, dated August 2, 2005, page viii.

14. Supported by the United States Joint Publication 3-16 (JP 3-16) *Joint Doctrine for Multinational Operations*, dated April 5, 2000, states that security is achieved by "directing all the elements of national power (diplomatic, economic, information, military) toward the strategic end state [and] while U.S. forces remain unilateral capability, whenever possible they will seek to operate alongside alliance or coalition forces." (p. 1-3) "When diplomatic, economic and informational means are unable or inappropriate to achieve objectives, the alliance or coalition may decide to conduct large scale, sustained combat operations (p. 1-5)."

15. Osama bin Laden has pinpointed the economy as the United States center of gravity, the source of national power, as articulated in an English language transcript translation of the "Osama bin Laden Interview", dated October 21, 2001, and posted on May 23, 2002 on Qoqaz.net.

16. NAFTA Facta Document, obtained February 18, 2005 from <http://www.mac.doc.gov/nafta/3001.htm>.

17. United States Census Bureau, "Trade with Mexico," obtained February 12, 2007 from <http://www.census.gov/foreigntrade/balance/c1220.html>.

18. "Declaration of War Against the Americans Occupying the Land of the Two Holy Places," published on August 23, 1996, in Al Quds Al Arabi, a London-based Arabic newspaper. The 1996 Declaration of War emphasized protecting the Arabic economies and damaging the U.S. economy, stating "... if economical boycotting is intertwined with the military operations, defeating the enemy will be even nearer, by Permission of Allah."

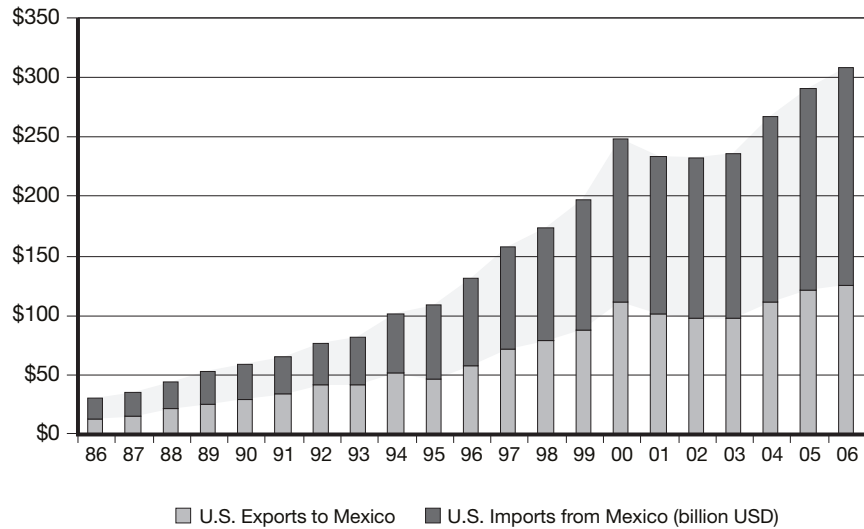


Figure 1. Trade Between the United States and Mexico.

economic success very dependent on the American economic behavior.¹⁹ Specific examples of the United States and Mexico economic interdependency are listed below.

- Oil. The United States is the world’s largest net oil importer and Mexico sends 90 per cent of its crude oil exports to the United States.²⁰
- Natural Gas. Pemex operates over 5,700 miles of natural gas pipelines in Mexico and the natural gas pipeline network includes twelve active connections with the United States.²¹
- Coal. Mexico imports coal from the United States, for electricity generation and steel-making.²²
- Electricity. Mexico exported 1,600 megawatt-hours (MWh) of electricity to the United States in 2005, while importing 470 MWh.²³
- Manufactured Goods. The majority of U.S. exports to Mexico consist of manufactured goods such as computers, electrical equipment and other manufactured articles.²⁴

19. Wikipedia, “Economy of Mexico”, obtained February 12, 2007, web site: http://en.wikipedia.org/wiki/Economy_of_Mexico.

20. Energy Information Administration, Department of Energy, Mexico Oil Paper. Obtained on February 12, 2007 from *Country Analysis*, Department of Energy, web site: <http://www.eia.doe.gov/emeu/cabs/Mexico/Oil.html>.

21. Energy Information Administration, Department of Energy, “Mexico Gas Paper”, obtained on February 12, 2007, from *Country Analysis*, Department of Energy, web site: <http://www.eia.doe.gov/emeu/cabs/Mexico/NaturalGas.html>.

22. Energy Information Administration, Department of Energy, “Mexico Coal Paper”, obtained February 12, 2007 from *Country Analysis*, Department of Energy, web site: <http://www.eia.doe.gov/emeu/cabs/Mexico/Coal.html>.

23. Energy Information Administration, Department of Energy, “Mexico Electricity Paper”, obtained February 12, 2007, from *Country Analysis*, Department of Energy, web site: <http://www.eia.doe.gov/emeu/cabs/Mexico/Electricity.html>. There are new ventures as well, such as a 20 Megawatt Electrical Plant to be Built in Sonora. The business Generadora Desierto, based in Miami, Florida, will build an electrical generator in San Luis Rio Colorado, Sonora with an investment of \$320 million (USD). The generator will have a 520-megawatt capacity and will operate based on natural gas. Construction is forecast to begin in sixty days on land located in Mesa Arenosa in the southeast of the city and is projected to generate electricity starting in 2008. The electricity is primarily intended for exportation but will also strengthen the regional electric system. To date, the project has obtained permits from the Energy Regulatory Commission, has completed an environmental impact study, and has obtained construction and land use permits. February 10, 2007, Spanish web site: http://www2.notimex.com.mx/admin/descarga.php?nombre_producto=1723328&catalogo=nota.

24. Source: Foreign Trade Division, U.S. Census Bureau, Washington, D.C. 20233.

