

Innovation

Together, we need to continue looking ahead to anticipate future challenges and stand ready to face them. Our primary means of engagement is by way of ideas and the flow of information. Therefore, achieving the nation's objectives will rely on innovation.

—Robert M. Gates
Secretary of Defense

The Americas, our shared home, is a strategically vital, culturally rich, and widely diverse and vibrant region of 16 million square miles and 41 nations, territories, and protectorates. To appreciate our linkages, you have only to look at a map. Of course, we benefit from our physical connection by numerous land, sea, and air routes. Our proximity lends itself to a very natural tendency to depend upon each other. But we are also connected by so much more than just physical means—as previously described, we share environmental, cultural, security, and fiscal ties that inextricably link the fates of every nation in our hemisphere. Beyond the physical, economic, and demographic linkages, however—and perhaps most importantly—we generally share the common values of respect for democracy; a belief in the primacy of the rule of law; and conviction in the fundamental principle of inalienable human dignity. By and large, these beliefs underpin the foundations of our governments and remain central to our approach.

Because of these mutual bonds of common beliefs and values, the probability of interstate armed conflict is low. For the foreseeable future, the challenges and security threats we face in this hemisphere fortunately do not include any imminent conventional military threat to the United States, nor do we expect any major military conflict developing between nations in Latin America or the Caribbean. There may be some anxieties between neighbors, but those tensions which arise through the ordinary diplomatic and economic interaction between nations are primarily addressed through nonviolent means. Communication has been a strength

in our region, and has proven itself over the last couple years during some of the region's political tensions. This is evidenced by the peaceful mediation and resolution by regional leaders of the crisis between Ecuador and Colombia that occurred in March of 2008. The creation of the new South American Defense Council is yet another indication of the tendency to create forums to encourage dialogue and reduce tension.

Despite this peaceful state of the region from a state-on-state violence perspective, we do face extremely significant challenges that threaten security and stability throughout the hemisphere. The challenges in Latin America and the Caribbean are multiple and complex: among them a broad and growing spectrum of public security threats, the possibility of natural and man-made disasters, and an emerging class of issues such as those relating to the environment. Narcoterrorism, drug trafficking, crime, gangs, and natural disasters pose the principal security challenges within the region. Also, the prospect of transnational Islamic terrorism is of concern and bears due vigilance on our part. One specific area of increasing concern is the nexus of illicit drug trafficking (including routes, profits, and corruptive influence) and terrorism.

Poverty and inequality—particularly when combined with corruption which impedes the rule of law and creates insecurity—are critical issues throughout the hemisphere and leave many searching for the means simply to survive. In many cases, these issues create the conditions from which other challenges arise to threaten democracies throughout Latin America and the Caribbean. Areas with lower levels of economic investment, development, and growth provide a breeding ground for the full range of criminal activities, creating an environment where sanctuaries for terrorist organizations can develop and mature.

The mounting threat from gangs is one such outgrowth of underlying poverty and a lack of opportunity. Gang activity, much like terrorism, transcends borders and affects numerous countries in the region. Gang members are no longer resident solely in Central and South America; they create challenges throughout the Western Hemisphere and number in the hundreds of thousands. Gangs are highly complex organizations imbedded in many types of societies and they use technology in new ways to circumvent lawful authority and travel across national borders with relative impunity.

The global illicit drug trade remains a significant transnational security threat as its power and influence continue to undermine democratic governments, terrorize populations, impede economic development, and hinder regional stability. The profits from this drug trade, principally cocaine, are an enabling catalyst for the full spectrum of threats to our

national security, and present formidable challenges to the security and stability of our partners. Drug traffickers are constantly developing new means of preventing interference with their illegal narcotics activities. As we modify our tactics, drug producers and traffickers find innovative methods to develop the drugs and alternate trafficking routes. The drug traffickers of yesterday have become much more lethal today, and this trend is expected to continue. Our success—or failure—in addressing this insidious threat will have a direct and lasting impact on the stability and well-being of both developed and developing countries of the world. Innovative approaches and partnerships are needed to successfully confront this dangerous threat. It will take a coordinated multiagency and multinational strategic approach that brings to bear the strengths and resources of diverse, capable groups to stem the rising tide of the illicit drug trade.

Armed forces are often at the forefront of disaster relief operations and other forms of humanitarian assistance. In many cases, the military is the only resource able to deploy quickly to impacted areas. It can contribute a variety of assets ideally suited for demanding work—transportation, civil engineering, medicine—linked by a highly disciplined and organized command and control system and logistics train. These characteristics highlighted in humanitarian assistance and disaster relief missions are the same attributes that lead governments to task their armed forces with non-traditional missions increasingly distanced from the use or threat of force. Duties in support of public health, critical infrastructure, and the environment are increasingly encountered.

These challenges to collective security, stability, and prosperity have not emerged overnight, nor are they going to go away overnight. The challenges cannot be overcome by any one nation alone; they require transnational solutions. They cannot be overcome by the military alone; they require a truly integrated interagency and even private sector approach. But those challenges that we can link to human endeavors—namely narcotics and human trafficking, international crime, urban gangs, radical movements, and illegally armed groups—are predicated on an environment conducive to their activities. They flourish where governments are either complicit or physically unable to govern effectively. The Americas has a substantial number of these areas—some within the capitals of our partner nations themselves, some on the high seas—but all posing a significant challenge to progress and a promise for security throughout the region.

Specifically for the United States, addressing the challenges posed by gangs, drugs, and terrorist threats requires the application of all

instruments of national power. The Nation must also deal with the underlying problems of unemployment, corruption, and a general lack of opportunity. The U.S. Government—particularly the elements of the interagency community—must encourage and assist in building partnerships across the region while working with intergovernmental organizations to ensure success.

Additionally, within this adapting and evolving neighborhood, there exists a “battlefield” of sorts, where traditional state actors, regional power brokers, and even terrorists and criminals share equal footing and are constantly positioning themselves for the ensuing “combat.” This struggle takes place in a competitive marketplace of ideas, and as we have seen consistently in the years following the tragic events of 9/11, it is one within which nontraditional actors have become very adept at operating. In this environment, change happens fast. The advantage goes to those who can think, act, and communicate swiftly and in the most effective manner. Leading and synchronizing actions to accomplish any particular mission require thorough knowledge of the current situation as well as a vision for a future environment—one of freedom, security, stability, and ultimately, prosperity.

Taking all this into account, we in the Department of Defense must expand our understanding of conflict beyond lethal means, thereby reevaluating and extending the definition and scope of military operations to include “peacetime” engagement and training activities, as part of a single aggregate strategic skill set. Our self-imposed judicial, political, and moral boundaries that separate combat from criminal activity, domestic from international jurisdiction, and governmental from private interests all provide operational space for innovative and lethal opponents who neither possess nor respect such boundaries.

These are the new fundamental conditions of the 21st-century security environment. This blurring of the lines separating traditional kinetic missions from these nontraditional tasks can be cause for concern, especially with regard to taking on public security responsibilities. National leadership must ensure that roles and responsibilities are clearly defined, and that the forces are adequately trained and equipped.

We cannot expect clear transitions between war and peace—or combat and law enforcement; thus, in certain regions, we need new ideas, approaches, and organizations to manage engagement across the entire spectrum of international relations conditions. Enabling truly joint and interagency and international activities requires additional protocols and authorities to provide effective synchronization of various U.S. Government agency resources,

as well as integration among the regional authorities of other governments and nongovernmental actor cells. We need to explore new ways of thinking, communicating, and operating within today's dynamic and challenging international environment.

Countering such threats and reacting to the informational realities require new organizational structures and operational procedures not predicated on traditional notions of war and peace. Our old models and methods provide solutions only when such black and white paradigms are readily distinguishable. Today we operate in shades of gray.

These challenges—transnational and adaptive by nature—must be successfully addressed to provide the security that is an essential precondition to the stability and prosperity we all desire. They require both technological and human innovation to enable cooperative solutions. Furthermore, these solutions will increasingly involve joint, interagency, international, and even private sector approaches that can include nongovernmental organizations, educational institutions, charities, and other stakeholders.

So as we face these challenges at U.S. Southern Command—virtually all require a wide variety of tool sets beyond pure military activity to solve—we are looking for creative solutions to approach partnerships throughout the region. We must innovate in the way we think, organize, plan, and operate; in the way we adapt new technology to ever-changing challenges; and in the way we communicate, including how we describe and frame our challenges both with our partners and with the public in general.

The old adage that “change is a constant” should instead read “change is constantly accelerating.” Yet, our core mission has been left unchanged—we remain a military organization conducting military operations and promoting security cooperation in Central America, the Caribbean, and South America in order to achieve U.S. strategic objectives.

We are living in an age of rapid change facilitated by advancing technologies and increasingly networked systems, societies, and economies. In order for security agencies to be successful in this complex environment, those organizations must be flexible, open, and forward-thinking. As globalization deepens and threats emerge and evolve, security organizations will need to continue fostering and building relationships with willing and capable partners to face transnational challenges. The security of the United States and that of our partners depends largely on our capacity to leverage joint, international, interagency, and public-private cooperation—all reinforced by focused messaging and strategic communication.

This unfolding 21st century presents U.S. Southern Command with an opportunity—indeed, an obligation—to define and shape new staff structures and attendant processes that will best achieve U.S. national security objectives in an era of transnational and unconventional threats.

The achievement of excellence can only occur if the organization promotes a culture of creative dissatisfaction.

Lawrence Miller
CEO of Forbes

Establishing a “Culture of Innovation”

The aforementioned challenges—transnational and adaptive by nature—must be successfully addressed to provide the security that is an essential precondition to the stability and prosperity we all desire. Meeting them is beyond the capabilities of any one country’s military, or for that matter, any one country—they require *both* technological and human innovation to enable cooperative solutions. Furthermore, these solutions will increasingly involve a joint, interagency, and international approach that can include nongovernmental organizations, educational institutions, charities, and other stakeholders. Our hemisphere in particular is one in which we will need to be extremely effective in launching ideas, concepts, and cooperative opportunities for engagement, all of which require innovation.

U.S. Southern Command developed a new strategic plan—“Command Strategy 2018”—based on this very principle. Our commitment to a strategy entirely focused on this integrated approach is manifested in our recent restructuring into a joint and combined interagency security command: an entity casting off large parts of its traditional Prussian-inspired layout reflecting a classic kinetic military, and transforming into a highly adaptable, matrixed organization that brings together armed forces elements and previously labeled “outsiders” under one roof, bonded together by a common cause. It is only through this degree of difficult but necessary revolutionary change that Southern Command can continue to strive to achieve and protect U.S. national security objectives and better strive to become the partner of choice with friends and neighbors in pursuit of a cooperative and shared security, stability, and prosperity.

Innovation is the key to accomplishing and sustaining this change. In a resource-constrained environment, efficiencies can only stretch budgets and labor so far, and the U.S. military, as well as partner nation forces, harvested all the low-hanging fruit long ago. Admiral Sir Jackie Fisher, one of the most innovative minds ever applied to naval operations, remarked early in the 20th century as British budgets were being squeezed, “Now that the money is running out, we must think!”

As previously mentioned, our world is continually shifting and constantly evolving, and this change can be difficult for any large organization to manage. In fact, according to Peter Drucker, “one cannot manage change—one can only be ahead of it.”¹ We as a nation must be able to achieve this; further, I believe the United States can and must actively take a role in *leading* this effort. Ideas, both good ones and bad ones, as vetted through a sometimes painful trial-and-error process, led to the cultural and technological innovations that launched this current phenomenon of globalization. It will take more ideas to sustain the engine that drives borderless transactions and interchange, the diffusion of knowledge, and the regional and global redistribution of high-value services that characterize our world today. And it is the successful, pragmatic, and strategically-oriented organization—one that is not adverse to change but, in fact, embraces it—that will promote the generation and exchange of ideas, will foster intellectual rigor, and will create an environment that cultivates passions among and throughout all levels for the scholastic engagement of challenging multiagency and multinational issues. We cannot shy away from these issues; rather, we need to identify them, meet them head on, and be proactive in finding solutions for them *together*.

Change starts with vision, and from that, a strategy to achieve that vision. In 2006, when I took the helm of U.S. Southern Command, one of the first steps I took was to establish my guiding principles for the enterprise—near the top of that list was “Innovate to Improve.” Organizational innovation requires both a framework to gather and assess ideas and processes that translate vetted concepts into capabilities. As part of our transformation in this endeavor, we established a Joint Innovation and Experimentation (“Innovation”) Directorate. The Innovation Directorate’s four divisions—Joint Experimentation, Strategic Assessment, Knowledge Management, and Decision Support—were charged with driving significant performance improvements in how the command trains and fights and how it does business with its diverse stakeholder base. Later, a small Innovation Cell was established within my Commander’s Action Group

(CAG) and it was presented with the overarching challenge of creating and maintaining a *culture of innovation* across the entire Southern Command enterprise. My guidance for innovation within the enterprise was then promulgated and followed these four main tenets:

- Innovation would be encouraged and positively recognized at all levels.
- All personnel assigned within the command were requested to dedicate approximately 15 percent of their work schedule to innovative thought (a goal I personally strove in earnest to achieve, as well).
- The Southern Command Innovation Cell would serve as a full-time, dedicated resource to promote innovation within the enterprise and to help foster unity of effort for combatant command (COCOM)–level innovative initiatives.
- Innovative initiatives would be reviewed at the commander level on a monthly basis to provide guidance and top level endorsement where appropriate. Other Southern Command senior leadership would review innovative efforts at least quarterly during every Component Commander’s Conference.

To this end, the intent was to use the Innovation Cell as a catalyst, to work at all levels within the enterprise to encourage and promote innovation from all members. To do this, the cell was given three specific innovation-related taskings. First, it was charged with promoting a “culture of innovative thought” throughout the organization and, through this effort, establishing a climate conducive to change. This is a necessary precondition to implementing Strategy 2018. Culture change is undoubtedly difficult to effect and quantify, particularly so in a military organization. Again, however, we must not be satisfied with merely being passively “caught up” in change, but rather striving to lead change. As Drucker points out, “unless it is seen as the task of the organization to *lead* change, the organization—whether business, university, hospital and so on—will not survive. In a period of rapid structural change, the only ones who survive are the *Change Leaders*.”²²

The cell’s second main assignment was to take the lead in identifying new and creative ways of meeting the command’s missions: in particular, contending with the previously described public security, natural disaster, and emerging nontraditional challenges. This involves exploring new concepts and/or creative use of mature technologies, then rigorously testing possible solutions via simulations and proof-of-concept demonstrations. To accomplish all this requires creating a cadre of individuals (change leaders) who see change not as a threat, but rather an opportunity; who actively

search for change, making appropriate decisions on which changes to pursue; and who know how to achieve results that are effective both outside the organization and within it. At the enterprise level, such attributes and actions require the following:

- Policies to make the present create the future
- Systematic methods to look for and to anticipate change
- The right way to introduce change, both within and outside the enterprise
- Policies to balance change and continuity.³

Finally, the directorate was given the primary responsibility for developing validated solutions into an initial operational capability. These can take the form of material, nonmaterial, and combined approaches. I will go into this process more deeply with a couple specific examples, but briefly, in many organizations, innovation tends to follow a “waterfall” or “stage-gate” process whereby solutions development follows a sequential path through a series of discrete phases demarcated by stage reviews. This may work in situations where the environment is relatively stable, incremental progress is the norm, and speed is not essential. Other enterprises, including some military acquisition programs, embrace a “spiral” innovation model that emphasizes fielding a desired operational capability in a series of predefined iterations. While this approach offers significantly more flexibility than the former, it is still inadequate for addressing evolving requirements and incorporating the concerns and contributions of a large number of diverse stakeholders.

With this in mind, Southern Command adopted an “open innovation” model allowing it to integrate internal and external actors throughout its transformation. This collaboration-centric logic ties together the requirements and capabilities of its joint, interagency, and international constituency. Only through such a paradigm can the command harness such a widely diverse group—including military services, intelligence agencies, law enforcement organizations, academic institutions, private enterprises, and nongovernmental organizations—in a manner that is fast, flexible, risk minimizing/mitigating, and cost-efficient.

Introduction to innovation at Southern Command is briefed during every welcome-aboard class at the command to help ensure 100 percent participation in the program. Senior leadership from not only the headquarters, but also the components and joint commands within the enterprise, regularly promote innovation at speaking engagements, publications,

and in partner nation relations. We have also seen great benefit from timely, regular, and broadcast recognition being given to those personnel supporting innovation projects.

I am often asked how many people are in the Southern Command innovation program. The answer is, “It depends.” It is true that we only have two to three full time members in a dedicated Innovation Cell at the headquarters; however, virtually every subordinate element reporting to Southern Command has formed some type of innovation cell. Recalling my initial request to all personnel to contribute 15 percent of their time to innovative thought, it quickly becomes a fairly large innovation team supporting the desired endstate of promoting, instilling, and maintaining a culture of innovation.

A wonderful example of a widely embraced innovation effort at Southern Command is the relatively recent entry into social networking and social media techniques. This effort strikes directly at the “cultural mindset” target and these pioneering concepts had roots in the Strategic Communications and Public Affairs Departments at the headquarters. Innovative use of social networking has quickly been seized and promoted by virtually every directorate and reporting element within the organization. The initiative has formed its own culture of innovation and, once again, has transitioned to mainstream operations at Southern Command.

Not Just Technology

It is often assumed that all innovation is technology related and therefore occurs primarily at the operational and tactical levels. True, technology has formed a large portion of the Southern Command innovation projects over the last few years, but these have come hand-in-hand with “strategic innovation”—that is, the creative, imaginative, and insightful thinking that targets the organizational, cultural, and paradigmatic levels. Examples of this type of philosophy include initiatives such as process improvements, nontraditional partnering, and business engagement, among others.

As stated earlier, our current strategic environment presents many novel challenges and is dynamic and constantly evolving. Clearly, today’s challenges require a broader understanding of all aspects of our national engagement in Latin America, and with this broader view, a better focus on the totality of our efforts in the region. This broader lens includes the enormous contributions of the various members of the interagency community of the U.S. Government. It also encompasses what we think might be the proverbial “submerged portion of the iceberg” when it comes to engag-

ing the region—the vast potential of public-private cooperation. This means we will have to use inventive nontraditional approaches to creating security and stability in this region, largely by working with regional partners abroad and interagency community partners and the private sector at home. One such paradigm shift needs to continue to involve information-sharing and our ongoing transformation from a mindset of “need to know” to “need to share.”

Recognizing the interagency character of the task ahead, we have created a new structure in our organization—a robust staff group with direct access to the commander—that is charged specifically with “interagency activity and international partnering.” This new division’s function is to broaden our awareness of interagency efforts, establish relationships based on trust across the interagency community, integrate other agency experts into the planning process, and ultimately help to achieve a greater synergy of engagement and messaging in the region. This is the first step in our innovative approach.

Meaningful partnerships are based on commitment according to fundamental notions of reciprocity, understanding, and cooperation. The security cooperation partnerships we seek to build and nurture require connectivity, interoperability, and a baseline for communicating mutual understanding. The key is to work toward significantly broader mechanisms of mutual trust with our partner nations. To do so, we need to be able to shed the veil of secrecy, on demand, and to share our technology with partners. Of course, an important caveat to this is the need to retain the ability to restrict access for our own security purposes when for whatever reason those partnerships erode. The time is right to expand our technology base for building partnerships—to build upon a long history of friendship and cooperation—especially in a region in which “combat” is waged and won largely by words and trust, not bullets.

Another example of how we can use innovative approaches is found in the maritime domain, the second-most prevalent and traveled milieu in this hemisphere (behind only cyberspace). As previously described, even with our nation’s naval capacity, policing the regional waterways, when combined with our other global commitments, requires more capability than we alone can deliver. Designing a regional network of maritime nations, voluntarily committed to monitoring security and responding to threats of mutual interests, is one of the cornerstones of our Partnership of the Americas.

At Southern Command, years of multilateral fleet and field exercises have provided the basic building blocks for cooperative security in our

shared home. For instance, the annual exercise UNITAS first started in 1959 and has been instrumental in establishing working relationships among U.S. and Latin American naval, coast guard, and marine forces. The friendship, professionalism, and understanding encouraged among participants provide fertile ground to promote interoperability, develop a common framework for information exchange, and establish the command and control protocols we will need to achieve what might be called a Regional or even Global Maritime Coalition.

Additionally, Southern Command has served as a test bed for two concepts that are critical enablers for such a coalition concept. We have seen the hospital ship USNS *Comfort* deploy throughout the region twice in the last 3 years, visiting various countries in Central America and the Caribbean, including nations on both sides of the Panama Canal. This tremendous first for our region has provided a highly visible and meaningful symbol of our commitment to the people of this part of the world. We also sent a new type of vessel into the region, a converted car-ferry with enormous cargo space and the ability to reach speeds of 45+ knots, the high-speed vessel HSV *Swift*. This ship carries a wide variety of training teams and gear, repair capability, medical capacity, and exercise coordinators and has paid immediate and large dividends for training, exchanges, building trust, and helping our partner nations enhance their own abilities. These deployments along with others have provided valuable lessons-learned to help the U.S. Navy institutionalize the Global Fleet Station program, which will result in flexible forward presence options to conduct theater security cooperation activities. This kind of “operational innovation” is crucial and we will continue to pursue it.

Southern Command has also pursued innovation in increasing its language capability. We share deep-rooted cultural ties with our neighbors. One only has to look at U.S. demographics to see that over 15 percent of our population traces their heritage to the Hispanic culture, and by 2050, that number is expected to surpass 30 percent. Still, when we conduct military-to-military exercises in the region, we find that success is hampered by language difficulties that diminish real understanding. This is true, of course, throughout all regions of the world.

The difficulty for those who are not multilingual is that trust-building interaction with our partners requires more than mere translation—it requires transfer of ideas that take into account cultural nuances. In other words, it simply is not enough to just see someone else’s point of view or perspective; rather, to truly possess their vision, you must be able to see it through *their* eyes. To accomplish this, you must attempt to

walk where they walk, eat where they eat, read what they read, and speak how they speak. Only then will you truly be able to think and understand how *they* think.

Across all branches of service and throughout the Department of Defense, language learning is seen as a crucial part of developing cultural understanding. We have a goal at Southern Command for 60 percent of the enterprise staff to gain bilingual proficiency—the DOD average is 10 percent. With the tremendous workload we all face, the objective is nearly impossible to achieve following traditional methods of learning. Obviously, any method used to speed and facilitate language learning can have profound, positive impact on the readiness of our command. A wave of advances in cutting-edge technologies has resulted in an entire range of research disciplines devoted to language learning techniques. Advances like these make it foreseeable that one day we may have something like a “virtual tutor”—a device that provides authentic, real-time interaction and translation, as well as conversational advice and feedback to the learner that encourages self-confidence and independence. As envisioned, such a device would easily rival years of immersion study, which is widely espoused as the best technique available today to achieve language proficiency. This kind of “cultural innovation” is key.

We are also working to amplify the benefits of a number of programs already in place. Besides its many training exercises and security cooperation programs, Southern Command conducts a variety of humanitarian goodwill activities that directly help those in need, while also providing needed training to our team. Each year we construct wells, schools, community centers, and medical clinics in several countries in the region. As an example of our commitment—of our promise to the people of the region—our medical personnel treat about a quarter of a million patients on an annual basis, varying from routine prevention to the most serious emergency cases. We are taking a “blank sheet of paper” approach to finding ways to make these already beneficial programs far more productive and integrated with host nation, interagency, and private activity.

Recently we began another new initiative designed to scratch the tip of the iceberg-like potential of public-private sector cooperative ventures in the region. In a resource-constrained environment, the vast benefits of cooperating with the private sector are obvious. Of course, we need to ensure we create a defensible legal framework upon which we build this cooperation, but through innovative collaboration, we should be able to realize tremendous outreach benefits. An example of just such a venture is the U.S. Navy’s global outreach program called Project Handclasp. This

unique partnering program takes goodwill materials donated by the U.S. private sector—ambulances, school supplies, high-nutrition meals, etc.—and, at minimal cost to the government, distributes them as Navy ships pull into harbors worldwide on already scheduled port visits. This outreach program is a “people-to-people” endeavor, not “government-to-government”; it connects the people of the United States to the people of the world, and it builds tremendous goodwill toward our service members, since the donations are usually in conjunction with community service volunteer projects like repainting and refurbishing schools, hospitals, clinics, orphanages, and homes for the elderly. In our area of focus, just in 2008 and 2009, Project Handclasp provided almost 30,000 pounds of material for Guatemala valued at \$234,000; it provided 225,000 pounds of material for Peru valued at just over \$1 million; and in the largest effort to date—the Million Meals Initiative—Project Handclasp provided the following to Haiti: 1,425,000 high-nutrition meals, water filter capability for 350 institutions and homes (each with a 10-year lifespan), pharmaceuticals valued at over \$268,000, medical materials, hygienic supplies, wheelchairs, and stuffed toys for children. This tremendously successful program is only a small part of what we can achieve with these types of cooperative ventures. As a nation, we need to tirelessly seek out additional ways to employ innovation and creativity to our national outreach: from ideas like micro-loans, to \$100 laptops, to Internet and broadband penetration, to teaching programs, and more.

Another foray into the still nascent arena of public-private and military-civilian cooperation is a ground-breaking effort sponsored by the Southern Command Business Engagement Directorate working with the Business Executives for National Security (BENS). An idea was formed to explore vulnerabilities in the business models used by drug trafficking organizations (DTOs). If we can successfully perform conceptual role-playing as a DTO, we could potentially project how DTOs would act in the next few years and proactively respond to those challenges. Who better to accept this role than a group of highly successful business leaders and professionals? Consequently, the “BENS Cartel” was formed. BENS members worked hand-in-hand with JIATF-S and various partner agencies and departments, including DEA, FBI, and CBP to support this nontraditional initiative. This partnership has the potential to yield positive and rapid return on investment in our ongoing struggle with illegal narcotics producers and traffickers, a major source of death and misery in our shared home.

Additionally, we continue to build on efforts of the past few years in the area of human rights. Several nations in the region are still struggling

with the fragile balancing act between peace and justice—focusing on the future and attempting to find reconciliation between former enemies on one side, while being forced to look into the not-so-distant past on the other side to dispense punishment and garner retribution for the abuses committed by uniformed militaries, militias, and guerrilla groups. At Southern Command, we have created a unique and dedicated group of experts working with the nations in the region to improve performance in this vital area. We sponsor a Human Rights Initiative that has created a consensus document on human rights by which the militaries of eight nations and a multinational organization have committed to advance institutional respect for human rights and promote a zero-tolerance environment for violations. We also have proposed legislation to Congress, approved by the Department of Defense and the President, to establish a Center for Excellence in Human Rights. This center will allow us to expand our human rights program and to collaborate with an array of agencies and organizations in public-private partnerships to extend the reach of these critical efforts.

These are just a few ideas about innovation here at Southern Command and in our area of focus: major structural reorganization (with a distinct purpose and desired endstate) to include a Civilian Deputy Commander and an Interagency Partnering Directorate, and *the* gold standard for future joint and combined interagency and international security organizations—JIATF—South; cultural innovation through advanced learning techniques; operational innovation like the Global Fleet Station and exercises like Panamax and Unitas; coalition innovation brought about through sharing information with our reliable partners in the region; technological innovation in terms of precision-guided intelligence; and, even legislative innovation through laws like the recently passed Drug Trafficking Vessel Interdiction Act of 2008, which outlaws unregistered craft plying international waters “with the intent to evade detection.” This is truly proactive, aggressive, and game-changing thought and action by our distinguished legislators and teammates in Congress and helps to strengthen the message that we need to develop and instill this culture of innovation across and throughout all levels and instruments of national power.

Spectrum of Innovation

While working toward this overall objective and mindset, a primary goal has been to encourage innovation at multiple levels. Large-scale innovative efforts, such as transforming Southern Command into a Joint Interagency Security Command or deployment of the USNS *Comfort*, have been

well recognized and largely embraced. But we also want to encourage creative thinking on projects of smaller magnitude that may not receive nearly as much attention. Project Mirador is one such example.

Mirador was the first deployment of an unmanned surface vehicle used to support real world counterdrug (CD) operations. The demonstration was conducted in less than a month, for less than \$250,000, and with the involvement of just two members of the Dominican Republic Navy working with the Naval Undersea Warfare Center (NUWC). It may someday revolutionize how DOD and other applicable agencies conduct littoral water counter-illicit trafficking (CIT) operations, but the project had a very modest start at Southern Command. In contrast, at the other end of the spectrum is our endorsement of long-term projects such as the Integrated Sensor Is Structure (ISIS). ISIS is a very large-scale, multiyear endurance airship program intended to revolutionize intelligence, surveillance, and reconnaissance (ISR) provided to the combatant commands. ISIS is currently sponsored by the Air Force and DARPA. Early expression of Southern Command desires and challenges in this type of large-scale project is equally as important in the spectrum of innovation as the smaller projects.

Further, any worthwhile innovative effort will produce its own set of unique challenges and obstacles that need to be overcome. In most cases, there will be no established procedures or guidelines for integration of a concept that is truly revolutionary. There will be discomfort and a feeling of uneasiness for the prospective innovators, as people leave their established methods and technologies to consider unknown initiatives with no guarantee of success.

Truth be told, we are awash in a sea of this “disruptive technology.” Technological innovation is at a fever pitch—in information, in electronics, and most recently in the biological sphere. Each day, it seems, there are dramatic emergent advances trumpeted in various industries: new generation computer chips, smaller communicative and connective devices, genetic enhancements, bioengineering marvels, indestructible polymers and veneers—at times one feels as though tomorrow arrives here newly minted every hour. The hard part is that most, if not all, of these technologies threaten to disrupt existing products and markets, producing turmoil and requiring difficult decisions by managers and planners across a variety of industries—including the military. Yet, they offer ultimately enormous rewards in terms of what they can deliver. It should be remembered that the things we tend to fear most in large, tradition-centric organizations—fluctuations, disturbances, imbalances—are the primary sources of creativity.⁴

How can we leverage the inherent goodness in such disruptive technologies in a way that maximizes benefits and minimizes confusion and failure? This is, of course, hardly a new problem. The emergence of such new technologies—which are potentially threatening to embedded legacy systems and procedural norms—is as old as the notion of business cycles itself. But today, the *pace* of emergence of disruptive technologies threatens to swamp the military’s ability to incorporate and use such advancements. We are reasonably capable of inventing and discovering disruptive technology; managing its incorporation, however, is not yet our strong suit and it thus remains a vast and fundamental early 21st-century challenge.

In the simplest sense, disruptive technologies are things that improve on a current product but initially seem too expensive and too limited in capability to make business sense, which leads businesses to “hold on to the old” rather than move to embrace the new technologies. As Roger von Oech urges, “It’s easy to come up with new ideas; the hard part is letting go of what worked for you two years ago but will soon be out of date.”⁵ Understanding what innovation means to an organization and to what degree it is embraced by the leadership defines the innovation process itself. Ensuring success in this process requires that one understands both the political as well as personal innovation philosophies that are inherent within the enterprise. Only then can one start to adequately approach identifying the institutional and cultural challenges, the re-tailoring of methodology, and ultimately the creation of a different environment and landscape. What has worked in the past will need to work better in the future—if it does not or cannot, then it will have to be replaced. This can be painful for those who have grown personally attached and have a personal stake in the existing process, idea, philosophy, or concept. This resistant mindset is what Drucker is referring to when he says the first “change policy” in making any organization receptive to innovation—even organizing it *for* innovation—is to *abandon yesterday*.⁶ This policy, which he terms “Organized Abandonment,” is centered on “the need to free resources from being committed to maintaining what no longer contributes to performance and no longer produces results.”⁷ He goes on to add, “In fact, it is not possible to create tomorrow unless one first sloughs off yesterday.”⁸

History provides us with many examples, in both the military and civilian worlds, where innovation—both technological as well as cultural—has run smack up against an entrenched industry or mindset that did not welcome its arrival, such as the telephone, the personal computer, ship-to-ship radio communication, the attack aircraft carrier, and cruise missiles and unmanned tactical aviation. How can we in the military best

position ourselves to take advantage of disruptive technologies? Essentially, we must establish mechanisms, as business has, to embrace creative disruptive technologies in ways that do not place national security at risk or prematurely discard still vital and useful older systems. One way, recalling Lincoln's quote, is to "think anew." James Bertrand put it slightly differently, though no less poignantly, when he remarked, "Once we rid ourselves of traditional thinking we can get on with creating the future."

Again, at Southern Command, we have found that forming wide-reaching partnerships to help overcome the various forms of resistance to change is one of the critical paths to success for innovation. Partnership compositions may be innovative and diverse themselves, potentially including other COCOMs, members of the interagency community, nongovernmental organizations, academia, corporate America, and various DOD centers of excellence. Our traditional approach of vertically aligned but mutually exclusive cylinders of excellence (stovepipes) prevents us from being able to develop or achieve synergy and leverage each others' excellent ideas and outstanding innovations. Sharing of ideas, planning, execution responsibility, assessment, risk management, and funding resources are just a few of the partnerships benefits.

An ongoing program addressing one of the toughest challenges to counter-narcoterrorism (CNT) operations in our area of focus—denying the use of foliage as a sanctuary to narcoterrorists—is a prime example of the potential payoff of strong innovation partnerships. This program is a combination of the A-160 Hummingbird and the Forester radar. The Hummingbird is a revolutionary project by itself: an unmanned helicopter, able to fly very quietly over the horizon with various sensor packages for almost 20 straight hours. Package the Hummingbird with Forester, a new radar with a demonstrated ability to track dismounts under very dense foliage, and you potentially have a game changer for CNT operations. To accomplish this type of revolution in technology, a formidable set of partnerships has been used. In this case, Southern Command has been extremely fortunate to partner with the Special Operations Command (SOCOM), DARPA, the Army's Research Development and Engineering Command (RDECOM), and numerous other organizations.

Assuming Risk

To truly accomplish revolutionary change through innovation at the enterprise-wide level, there needs to be a willingness to accept a good deal of programmatic, and even *career*, risk. A fair number of proposed innovation projects will not succeed as envisioned and may need to be abandoned. This

is perfectly acceptable. We must not allow failures to translate into stifling the new cultural mindset of the organization with a backlash of the old (the “See, I told you so . . . we should have never left the way we *used* to do it”); nor must we allow short-term setbacks to negatively impact the careers of these creative and inventive minds. To thrive in the contemporary security environment, change leaders must adopt an innovative approach—we must aggressively cultivate a professionally safe environment where energetic, pioneering, and inspired individuals can pursue innovation and creativity without fear of failure and its consequences.

Truly, if some level of success is achieved with even one-third (33 percent) of our innovation projects, we should be absolutely satisfied. If every project is successful, then the chances are the innovation program is not pushing the envelope enough in terms of seeking truly revolutionary solutions. As Woody Allen put it succinctly, “If you’re not failing every now and then, it’s a sign you’re not doing anything very innovative.” A word of caution and clarity, though: *programmatic risk* should never be confused with operational risk. Each innovation project involving operations undergoes an operational risk assessment to determine likelihood and severity of potential risks for any demonstration. Identified risks are addressed and mitigated or the project is suspended or canceled.

Take, for instance, Project Monitoreo, the first operational deployment of a maritime unmanned aircraft system (UAS) in support of counterdrug operations. Monitoreo deployed to Comalapa, El Salvador, and operated from the international airport alongside commercial aircraft. Careful planning and coordination were conducted to ensure safety at every step before the innovation demonstration was allowed to begin. Host nation review and approval of all procedures were absolute musts. Contingency planning was carefully considered and briefed before each event. Once again, innovation was not easy, and there were several ‘bumps in the road’ with things not going exactly as hoped or planned. In the end, however, the pioneering effort paid off: Monitoreo successfully demonstrated that a UAS could support regional CIT operations, thereby laying the groundwork for a new generation of aircraft to help support operations.

Second-Order Innovation Effects

Every innovative idea or approach is initially identified to address a specific deficiency or challenge area. However, in the process of demonstrating and transitioning most initiatives, we find second- and third-order benefits beyond the original intent of the innovation. Partner nation capacity- and capability-building during cooperative demonstrations in

our area of focus is one of the most valuable second-order effects we have encountered. Ensuring maximum participation and exposure to our partner nation friends during demonstrations by working closely with the Foreign Disclosure Office (FDO) has paid large dividends. Furthermore, innovation projects usually garner a fair amount of media attention and can serve as a means to promote the command's strategic messages. For each innovation project expected to receive media attention, the innovation team works closely with the Public Affairs and Strategic Communication Departments to develop approved sets of project strategic messages to take full advantage of any such opportunities. Finally, innovation projects can serve as a deterrent in mission areas such as CD and CNT. As Southern Command has embraced certain innovation projects, we have seen evidence of both DTOs and narcoterrorists closely monitoring our developments, undoubtedly considering how our new capabilities and concepts could affect their operations. If nothing else, we have momentarily seized the initiative from these groups just by the introduction of creative and potentially game-changing innovation.

Southern Command Innovation Process

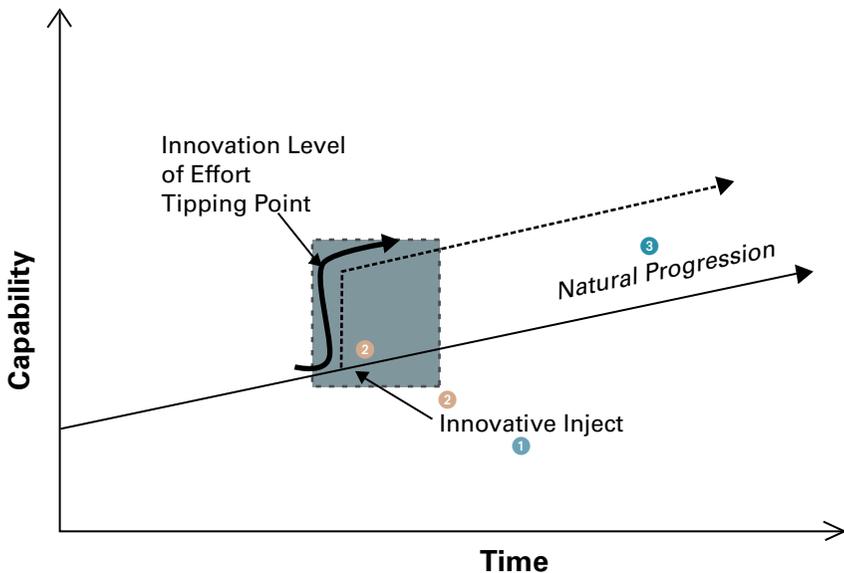
The Southern Command Innovation Cell routinely supports a portfolio of around 10 to 15 ongoing initiatives at different stages of maturity. However, there is no intent for the Innovation Cell to be the keeper of all innovative efforts in the enterprise. This is an extremely important point. Each of the directorates, components, joint commands, and military groups within Southern Command is enthusiastically pursuing and developing its own inventive and creative projects across the previously mentioned spectrum of innovation, taking advantage of the autonomy provided by a flatter and more functionally reorganized enterprise. So in essence, there are probably hundreds of these types of projects ongoing within the command and our area of focus at any given time.

Innovation projects, particularly the technological ones, by nature are usually revolutionary and flashy. They capture attention, spur imagination, and inspire people. Projects such as the HSV *Swift*, which has been used by Southern Command to support Southern Partnership Station, fall into that category. There are several other projects mentioned throughout this section, and all serve as examples for lessons learned on how to successfully cultivate and integrate outstanding ideas and personnel to help build into the enterprise what Drucker refers to as a “systematic policy of innovation—that is a policy to create change.”⁹ The ultimate objective, of

course, is to enable the entire organization to *see change as an opportunity*, not as a challenge, threat, or something to be feared.

For any organization, and this is particularly true in our experiences at Southern Command, there is a natural evolutionary progression of improvement over time for virtually any capability or process. In the following diagram, this is represented by the solid line. Some processes improve faster or slower than others, but all share a linear growth pattern. At Southern Command, these capabilities could include humanitarian assistance, disaster relief, counter-illicit trafficking operations, public affairs engagement, strategic communications, or a long list of other areas. The men and women of Southern Command work every day to improve these processes and operations. These “continuous improvements” will inevitably transform the thoughts, activities, and methodologies on the micro level, and the organization as a whole on the macro level. They lead to product innovation, service innovation, new processes, and new second- and third-order follow-on endeavors. Ultimately, as Drucker points out, “continuous improvements lead to fundamental change.”¹⁰ One of the intended outcomes of the innovation program, then, is to be a *support organization*, intended to *complement* these established efforts. We break it down into three steps or phases.

Figure 7–1. USSOUTHCOM Innovation Process



1 - Step one of the process is the *Innovative Inject*. The innovation effort tries to identify new and *revolutionary changes* in the way we currently do business to address the toughest challenges. Proposed innovation injects are solutions that will provide a disruptive change which, if successful, takes us off the *evolutionary* glide path of improvement. Some would call it a step function in capability, or more commonly referred to as a “game changer.” There are two keys to success in this phase. First, we adopt the *problem to solution approach*. The key is to prioritize the countless possible challenge areas based on Commander’s Guidance and other inputs like component commands, partner nation needs, and lessons learned from ongoing operations and programs. Additional indicators might include regional feedback from the military groups, regular interaction with each of the Service components, and debriefs from DOD and interagency units supporting the command in our area of focus.

Next, it is important to fully understand the nature of a chosen challenge through direct field observation and contact with personnel who know the most about the issues. Second, although perhaps even more important, is identifying a potential revolutionary solution to address the challenge. Once again, creative thought and partnerships are the key—promoting an accepted culture of innovation within the organization allows our personnel to express nontraditional solutions for consideration which might otherwise languish in fear of retribution or failure. It also presents an open door to academia, the private sector, and interagency groups who are eager to find and develop solutions to the truly difficult challenges, in support of regional or national security objectives. These partnerships are absolutely invaluable to the innovation program and need to be constantly nurtured and fortified.

Take, for example, the mission area of counter-narcoterrorism operations. In 2007, one Southern Command Military Group (MILGP) expressed concern that U.S. and partner nation riverine forces were being challenged by lack of intelligence, surveillance, and reconnaissance in the rugged riverine environment. The challenges were researched through the Southern Command service components and by working with our partner nations who held the most experience in riverine operations. Then, working through DARPA, a potential solution was identified. A low-cost, man-portable, maritime-suitable micro UAV weighing approximately 1 pound was proposed to support riverine operators with improved ISR and riverine security during day, night, and adverse weather operations. The project was named “Rio WASP.” Working with Peruvian marines and U.S. Navy Special Warfare personnel, the concept was demonstrated and evaluated

on the Amazon River and surrounding tributaries. It has since transitioned to real world operations and is a bright spot and success story for the still-nascent innovation program.

2 - Implementation through demonstrations is the heart of the second phase of our innovation recipe. At this point in the diagram, we have injected the innovation in some manner. But our work is decidedly not done—we have to do what Drucker refers to as “organizing the introduction of change . . . that is, to pilot.”¹¹ His thesis is that one cannot market research something that is truly original; neither exhaustive studies nor countless computer simulations can ever be a substitute for the true test of reality. Thus, every new idea, concept for improvement, and groundbreaking invention must first be tested, but done so on a small scale; in other words, it needs to be piloted. The way to do this is to locate somebody within the enterprise or its associates who really wants “the new.”¹² As in the example of Rio WASP in Peru, strong regional relations with our partner nations and the largely nonlethal environment in this hemisphere lent itself to an ideal venue for demonstrations.

Additionally, every innovative concept by nature should support ongoing processes or operations, so we need to quickly move from the idea stage to proof of concept. One of the key enablers to successfully accomplishing this is *agility*. In many cases, if we do not quickly take action on new ideas, our adversaries will do so, thus taking the innovative initiative away from us. This is also why the Innovation Cell does not necessarily wait for identified deficiencies to go through the entire vetting process of becoming a stated requirement before attempting to demonstrate potential solutions. Whenever possible, evaluation plans are designed to work hand-in-hand with regional partners and to provide some level of operational benefits, all while safely conducting the tests and evaluations. At the end of each segment, an assessment is conducted to analyze and determine the relative merits of each initiative.

There are two primary challenges to this phase. First, measured expectations are the key to the assessments. Everyone involved needs to understand that revolutionary projects will have hiccups and challenges along the way. Projects should not be abandoned if things do not go smoothly during the demonstration. In the words of Steve Jobs, the founder and CEO of Apple, “Sometimes when you innovate, you make mistakes. It is best to admit them quickly, and then get on with improving your other innovations.” Long-term vision and the ultimate *potential value* to the project and also to the enterprise as a whole should be the focus for any innovation project.

Second and more importantly, everyone involved with the demonstration needs to understand that *innovation is not easy*. In *Innovation and Entrepreneurship*, another of his visionary works on this topic, Peter Drucker emphatically states this warning early on: “Innovation is not a ‘flash of genius.’ It is hard, focused, purposeful work requiring diligence, persistence, and commitment.”¹³ It takes considerable planning and coordination to introduce any new and revolutionary concept or technology. This is particularly true when organizations are entrenched in a set or current way of doing business and are therefore resistant to change. In the case of Southern Command’s innovation program, top-down endorsement of these projects combined with recognition for personnel contributing to this type of work has significantly reduced inertia to innovation projects.

Project *Stiletto*, an afloat research and development platform supporting rapid technology demonstrations, is an excellent example of the value of utilizing a pilot program and maintaining speed, agility, and dedication to a long-term innovative solution. The concept behind *Stiletto* was to determine if a high-speed, low-draft, nontraditional hull form with an “electronic keel” and nontraditional crew could address some of the toughest challenges of maritime CIT operations. Working through OSD’s Rapid Reaction Technology Office (RRTO), Army South (ARSOUTH), and JIATF–South, the project quickly went from initial concept to deployment and accomplished a successful real-world CIT interdiction end-game in less than 10 months. Perhaps the most critical key in the entire deployment and demonstration was the partnership enjoyed with the Colombian military. *Stiletto* was based out of Cartagena, always had a Colombian rider aboard, performed cooperative operations with the Colombian Navy, and drew the steady attention of local senior leadership. Recognition was provided at the end of the deployment, as the ship’s master was awarded the Army’s transportation Warrant Officer of the Year award, in part due to his outstanding involvement with this project. Soon after the initial demonstration of *Stiletto*, the program was transitioned from the innovation cell to the U.S. Fourth Fleet for redeployment.

3 - Thus, transition is the key to the third and final phase of the process. In instances such as Project *Stiletto*, where innovative concepts show promise during the evaluation stage, the challenge is to quickly transition the concept or technology to normal operations. This is the dotted line in the diagram, representing a return to normal operations with an evolutionary improvement pattern restarting after the innovation inject

takes hold. A long-term vision for any innovation project and buy-in from people working within the enterprise are critical in making this a reality. Published demand signals to the service providers by senior leadership have been one tool used to promote promising innovative concepts. Without success in this stage, no long-term benefit will be realized by the innovative program efforts. Dr. Tony Tether, former Director of DARPA, summed up this phase well, stating, “Transitions are a full contact sport.”

Another success story can be found in an academia innovation partnership formed with the University of Miami’s Center for Southeastern Tropical Advanced Remote Sensing (CSTARS). The concept of using CSTARS was to determine how well access to a constellation of unclassified commercial satellites could support traditional Southern Command missions. Initial demonstrations were conducted with promising results. Subsequent letters of endorsements and demand signals for future use of CSTARS were published and promulgated to various centers of excellence and a funding mechanism was established within Southern Command. Within a year of the initial CSTARS demonstrations, hurricanes ravaged Haiti in 2008 and Southern Command responded with assistance, including an impromptu emergency redeployment of USS *Kearsarge* from its previously scheduled mission. Assessment of inland damage caused by the hurricanes was a critical need to the humanitarian assistance and disaster relief (HA/DR) efforts, and CSTARS provided vital imagery to those operations to quickly determine areas of highest damage and evaluation of inland infrastructure. Unclassified CSTARS imagery and information were then rapidly broadcast and distributed to both DOD and interagency responders via unclassified email. This response was only possible due to the groundwork laid during the initial CSTARS demonstration and a long-term vision for follow-on support made possible by CSTARS to Southern Command.

Both *Stiletto* and CSTARS show the ultimate benefit and return on the investment of persistence and commitment. Belief in your people and their talent, and being able to possess a focal length beyond the tyranny of the present are requisite traits of any change leader. Warren Bennis, an American scholar and pioneer in the field of Leadership Studies, provides this wisdom when he says, “Innovation—any new idea—by definition will not be accepted at first. It takes repeated attempts, endless demonstrations, and monotonous rehearsals before innovation can be accepted and internalized by an organization. This requires courageous patience.”¹⁴

When Alexander the Great visited Diogenes and asked whether he could do anything for the famed teacher, Diogenes replied, “Only stand out of my light.” Perhaps some day we shall know how to heighten creativity. Until then, one of the best things we can do for creative men and women is simply to stand out of their light.

—John W. Gardner¹⁵

The Way Ahead

In a very short time, Southern Command’s Innovation Program has delivered tangible results that are already contributing to the organization’s mission; furthermore, a constantly growing number of ideas are currently undergoing the transformation from concept to capability. Perhaps more importantly, the program is building the supporting innovation infrastructure—human and technological—to support the command’s own transformation. Consistent with the self-stimulating and self-perpetuating nature of innovation, several of the ideas in the innovation pipeline aim to further develop this infrastructure by broadening its reach and accelerating its information flows.

One such initiative aims to create an Innovation Working Group (IWG) concept within the command and our closest partners in the interagency community. The establishment of a single, combined Interagency IWG could streamline the innovation process and serve as an internal clearinghouse, cementing the links between the various networks by institutionalizing their interaction. Relationships founded by individual “Hunter/Brokers” are linchpins in launching partnerships—the key to growing and sustaining them is to extend the relationship beyond the founding individuals. This is especially true when military organizations are concerned, as it is the norm for their uniformed personnel to rotate frequently.

Another initiative uses technology to help address longstanding workflow management issues within the command. Synchronizing the organization’s headquarters, 5 component commands, 6 primary overseas operating locations, 25 offices in a like number of nations, and a multitude of other activities has always been challenging. Several information technology and process control approaches have been implemented with

mixed success. A concept under study takes lessons learned from fielding our own internal information management system, as well as ideas underpinning major transaction-based Web sites like eBay to overhaul enterprise-wide task assignment, status tracking, and decision support systems.

On the personal level, a successful change leader should be open to ideas and protective of those who advocate disruptive technologies. We need to work hard to widen the aperture of what is “permitted” in terms of discussion. This applies across the board, from the smallest conferences of mid-grade officers debating programmatic options to the most senior discussions of leadership, to include resources sponsors and requirements assessors on the joint staffs. As part of this spirit of openness, we must encourage the mavericks in practical terms—calling attention on fitness reports and personnel evaluations to innovation, for example. We should pursue with greater vigor programs to send officers into the private sector in lieu of a fellowship or war college—and recognize this in a career perspective as the equivalent of a master’s degree.

We need to strengthen our partnerships with the private sector and examine how businesses develop and integrate disruptive technologies over the longer term. We should learn how major businesses are doing this in ways beyond the immediately practical to decide what to invest in for the long term. We also should look for and encourage micro-economic deployment units, fondly known as the “bicycle shops.” This is where the mantra of “skip a generation” may actually play out. While the Services do this to some extent with their Tactical Exploitation of National Capabilities (TENCap) programs, clearly this is an area of potential expansion in the context of finding, nurturing, and introducing both innovative solutions and even the innovators themselves.

We should also get strategy and money talking together. This does not happen naturally, as organizations chartered with strategic long-range planning and technological long-range planning are separate entities. Once again, business does this far better than we do, and many corporations are creating specifically chartered “idea factories” to merge strategy and technology at the highest corporate levels. Therefore, perhaps as an adjunct to the innovation cell or part of the IWG, we should create an idea factory on the Service and combatant command staffs. We should consider having this as a direct report at a senior level, populated by a small group of creative and innovative technologists and strategists. Let them identify a series of small, specific disruptive technologies to challenge the orthodoxy. We have thousands of staff officers working on conventional ideas; let’s put some resources against the unconventional—our competitors and enemies

are doing this daily. These idea factories should be the places where strategy, technology, and money meet; they need access to the full range of current and future plans.

Finally, as we have learned here at Southern Command, there is fertile ground in the area of prototyping and leasing—we should continue exploring and emphasizing this. One key problem with the culture of experimentation is deciding when to buy, and then when to produce en masse. We need an approach that allows cost-effective leasing of commercial possibilities and prototyping of systems we want to try out that are not being produced commercially. Prototyping of weapons systems, platforms, vehicles, devices, etc., allows the possibility that some attempts will fail without doing so on the large scale of full-on procurement. Then, developing and producing the most promising concepts will help to remove hiccups early on, thereby reducing the cycle time from development to transition. It also will promote acceptance of disruptive technologies and ultimately useful systems. We may be able to expand service TENCap and joint advanced concept technology demonstration programs in this regard.

Continuing these gains and achieving success in these and other similar initiatives will require special investment in self-sustaining human innovation. Neither short- nor long-term progress can be sustained without meeting the overarching challenge of developing the right people and skill sets to serve in this environment. We must build a cadre of innovators—people with both pure intellectual firepower and a creative turn of mind who are capable of fusing two disparate disciplines: strategy and technology. Perhaps we should consider building a new curriculum at the Naval Postgraduate School or the Service War Colleges. Furthermore, early 20th-century innovators such as Sims, Moffett, and Mitchell all had career longevity and security—albeit they had enemies and had to fight for position. Again, we must strive to highlight that professionals who display the right attributes to qualify for an “innovation subspecialty” in Navy parlance truly have a career path in this field if they choose it. Each of the Services has created and protected a corps of acquisition experts—AP, or acquisition professional, again in Navy terms—a good step. Now we should consider how to create and protect innovators. Doing so in the military milieu is particularly challenging, as law and custom have long constrained the Armed Forces’ ability and agility to change; in fact, the historical and traditional nature of the Armed Forces as an institution creates a self-inflicted resistance to change.

It is the superficial interpretation of this observation that helps give rise to the view that any large, tradition-centric organization is incapable

of change, and would therefore never be able to truly embody a culture of innovation. The military in general does a superb job of developing its most cherished resource—its personnel; but without a doubt, we need to do better at promoting the right disciplines and skills among the right people, and putting those individuals in the right place at the right time. In this context, a fortuitous collateral effect of military collaboration with nonmilitary organizations is the cultural cross-pollination—the shared learning—that builds incumbent actors’ skills and expedites needed changes in the preparation process. This does not excuse the military from the fundamental responsibility of organizing, training, and equipping their members—rather it reinforces the obligation to adequately prepare their people to work together with the best of partner organizations.

Considering the immense talent, energy, and drive of our human capital, innovation working groups can deliver intellectual economy of force by combining diverse human talents in pursuit of shared problem-solving. These innovation specialists will help facilitate the paradigmatic shifts necessary to transform internal processes and organizational structures into efficient enterprise enablers. They will accomplish this not only by changing the way the enterprise assesses its current programs and performance, but also by maintaining a fresh perspective that sees change as opportunity. This constant striving for continuous improvement, when combined with an understanding and exploitation of innovation, is, therefore, the real benefit and product of a skillfully chosen innovation cell professionally led by visionary change leaders. Ultimately, we as change leaders must always remember, as so eloquently stated by Edwin Land, “The essential part of creativity is not being afraid to fail.”¹⁶

It ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new. This coolness arises partly from fear of the opponents, who have the laws on their side, and partly from the incredulity of men, who do not readily believe in new things until they have had a long experience of them.

—Niccolò Machiavelli

Every act of creation is first of all an act of destruction.

—Pablo Picasso

Conclusion

One of the challenges to successful innovation or creation is that the outcome is rarely what was envisioned at the start of the process, particularly when external factors are considered. In the hands of a sculptor, for example, “destruction” comes in the form of chipping away from the original form to create beauty. In the hands of a builder or developer, “destruction” comes in the form of leveling any preexisting structure or clearing any field before creating the architect’s vision. In both examples, the “destruction” comes from internal application, thus the end result usually remains a constant vision held firmly by the artist himself. However, as seen more often than not in the realm of national security, the act of destruction can also come from external actors, thus forcing us to create and innovate in response.

We need to constantly explore through innovation how to build the new world, making what seems impossible, possible. Many of the creative and innovative examples presented in this chapter were brought about by potentially destructive acts on the part of our competitors. On still others, we instituted the “destruction” internally by breaking the mold of preexisting norms and paradigms, as was the case with our enterprise reorganization and transformation. As we concurrently deconstruct and reassemble our role in national security throughout the spectrum of military capability—from nonviolent actions such as military-to-military engagement, security cooperation, and deterrence activities; through crisis response, contingency, and a range of limited operations; up to the highest level of combat intensity in major operations—we increasingly find ourselves redesigning military organizations to meet a “new” reality. These modifications blur the lines between the traditional instruments of national power, as well as the domains within the military instrument.

This blurring of the lines is exacerbated by the fact that the pace of innovation will continue to increase, and eventually biological revolutions will overlay the information and electronic ones we are experiencing today. The relevance of the military as a supporting force and critical enabler in

future operations that have not typically fallen into our “bin” will depend on our ability to identify, develop, and implement disruptive technology and other forms of innovative thought. In the end, we will miss many more times than we hit. Rather than the “single great breakthrough,” it is far more likely that we will have to manage numerous smaller but still significant changes. Ultimately, the greatest challenge will be letting go of what has so successfully brought us forward to this point. As Admiral Bill Owens has said, “The problem with deep, fast and rampant innovation is not getting people to accept the new, but to surrender the old.” Some would say we have difficulty giving up the old because, like a rock climber, we don’t have the luxury of letting go with one hand until we have a firm grip with the other: such is the nature in any business with the stakes as high as national security. But there is room for greater innovation and the taking of a few chances in today’s world. We should be prepared to sail against the wind.

I have referred to the quality of being “tradition-centric” several times in this chapter. It should not be viewed as necessarily a negative thing. Quite the contrary, there are beneficial aspects of tradition—predictability, standards in the expectations for performance and training, unchanging bedrock and core fundamental values, among others. Peter Drucker explains this concept when he says the traditional institution is designed for continuity—“people need to know where they stand. They need to know the people with whom they work. They need to know what they can expect. They need to know the values and the rules of the organization. They do not function if the environment is not predictable, not understandable, not known.”¹⁷ This dependence on continuity also explains why such institutions have an inherent resistance to change to some degree: change for the traditional institution is, so to speak, a contradiction in terms.¹⁸

Any such institution, then, whether business, university, hospital, or even geographic combatant command, must make special efforts first to be receptive to change and then to be able to imbue all within the organization with the desire to change. And this cannot be done in a vacuum: just as no one agency, military, or even country can face and overcome the transnational and adaptive challenges in our region, so too, no one organization can change rapidly without close and continuous relationships throughout the entire process chain, from innovators to leaders to suppliers and distributors to the end user. Change and continuity are thus poles rather than opposites; that is, the more an institution is organized to be a change leader, the more it will need to establish continuity internally and externally, and the more it will need to balance rapid

change and continuity. According to Drucker, “One way is to make partnership in change the basis of continuing relationships.”¹⁹

As stated earlier, there is goodness in tradition and history; there is need for continuity with respect to the fundamentals of the enterprise: its mission, its values, and its definition of performance and results. Precisely because change is a constant in today’s environment, any enterprise which attempts to embrace change—and inevitably *lead* change—must have foundations with extra fortification. It is no different at Southern Command—we are still fundamentally a military organization tasked with carrying out missions in support of our national security objectives. That is the “what,” and that has never changed, nor has the “why.” What *has* changed, however, is the “how” and that is what this chapter has been about: the need to change *how* we think, *how* we perform our missions, and *how* we communicate.

While we must always be prepared to excel in the kinetic domain, we must also accustom ourselves to excellence in areas *outside* the traditional military skill set. Our Armed Forces, particularly in the Americas, find themselves employing nonkinetic tools—instruments of smart power—to achieve their assigned missions. In a theater where we launch ideas, not Tomahawk missiles, the need to “fight to win” may be precluded if we can successfully “compete to *influence*.”

Innovation is the key to success in both kinetic and nonkinetic domains. As our Services organize, train, and equip forces, and combatant commanders employ them, senior leaders in each chain must foster a climate of creativity—they must truly become Change Leaders. This requires them to dedicate appropriate resources, build enabling organizations, and implement decision processes using metrics suited for an environment where the desired outcomes are difficult if not impossible to quantify with traditional—typically, attrition-based—metrics. The strategic environment in our hemisphere demands properly timed innovation and a relentless pursuit of emergent opportunities. We must streamline our internal processes, optimizing them for rapid information flows, particularly when it comes to decisions on whether or not to—and then how *much* to, harkening back to the discussion of prototyping and leasing—innovate in response to changes in joint and combined force requirements. We need to sense changes as they occur and react quickly. We must also be able to anticipate these requirements and take a certain number of steps to preempt, perhaps even prevent, these needs.

We must also remain very aware of our competition. *Innovation is a two-way street*. One look at the evolving self-propelled semi-submersible

vessels used by narcotics traffickers and it becomes instantly clear that our regional adversaries actively use innovation to support their own agendas. Their innovation groups may not resemble their counterparts in DOD or the members of the interagency community, but make no mistake about their existence or activity levels. In many cases, these groups enjoy the advantage of superior funding, no bureaucratic constraints, and no legal limitations. They are turning inside our circle with incredible ease. They are fast, they are smart, and they are coming at us with ideas. As innovators working at the combatant command level, we must constantly strive to prevail in today's continually shifting and dynamic security environment.

Ultimately, if we are to compete in this marketplace of ideas in our shared home, we need to be relentless in searching for and developing new vehicles and methods of delivery to communicate our strategic message—*we care about you*. Our efforts need a degree of coordination so that in aggregate, they are recognized by the people of the region as the “good” intended and achieved by the United States. Producing this type of understanding will take a broad, coordinated, and continuous strategic communication plan. Leaders at all levels of government—and even outside government—will need to maintain early, persistent, and creative involvement in the communication of our messages. Every innovative thought and deed needs to be packaged with the appropriate message—this will increase the partner nation buy-in that these past examples have highlighted as so vital to development and successful integration.

Finally, we need to leverage the linkages we share with the region to realize the true closeness the nations of the Americas can achieve. Whether it is the mixing and sharing of our cultures, our growing economic interdependence, our shared desires for freedom and prosperity, or our healthy military and security cooperation, we must create an understanding that we are all in this journey together. We need to challenge our staffs, our friends, our shipmates, our allies in this region—the dedicated professionals who work with us every day. Because at the end of the day, we will succeed if we remember that no one of us is as smart as all of us working together. We will prevail if we think about innovation, if we think about how to take the next step, if we recognize that opportunities exist in real time and have a limited shelf-life—we need to be prepared to move quickly in response to emergent opportunities. We've got to out-think our opponents. This is brain-on-brain warfare and that is how we will win in the end—by out-thinking them through innovation. From our broadening viewpoint at U.S. Southern Command, we need to foster innovative approaches that build and strengthen partnerships across the spectrum of

options—governmental, international, and private sector—to confront ever-changing and increasingly complex 21st-century security challenges.

Notes

¹ Peter F. Drucker, *Management Challenges for the 21st Century* (New York: HarperCollins, 1999), 74.

² Ibid.

³ Ibid.

⁴ Margaret J. Wheatley, writer and management consultant who studies organizational behavior, theories of change, and chaos theory.

⁵ Roger von Oech, author, inventor, and creator of Creative Think.

⁶ Drucker, 75.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid., 85.

¹⁰ Ibid., 82.

¹¹ Ibid., 86.

¹² Ibid., 87.

¹³ Peter F. Drucker, *Innovation and Entrepreneurship* (New York: HarperCollins, 1985), 15.

¹⁴ Warren Bennis is the Founding Chairman of the Leadership Institute at the University of Southern California and the Chairman of the Board of Directors at the Kennedy School of Government Center for Public Leadership.

¹⁵ John William Gardner served as Secretary of Health, Education, and Welfare under President Lyndon Johnson, and was founder of the White House Fellowship and Common Cause, the first non-profit public interest organization in the United States.

¹⁶ Edwin H. Land, American scientist and inventor, discovered the ability to polarize light; invented in-camera instant photography; and created the retina theory of color vision.

¹⁷ Drucker, *Management Challenges*, 90.

¹⁸ Ibid.

¹⁹ Ibid.