HOLDING THE LINE

in the 21st century

- ## A Strategic Evolution
  A path to border security
- ## A Risk-Based Strategy
  Targeting Illicit Networks
- ## Measuring Security
  Risk Indicators Along the U.S. Border

Written by:
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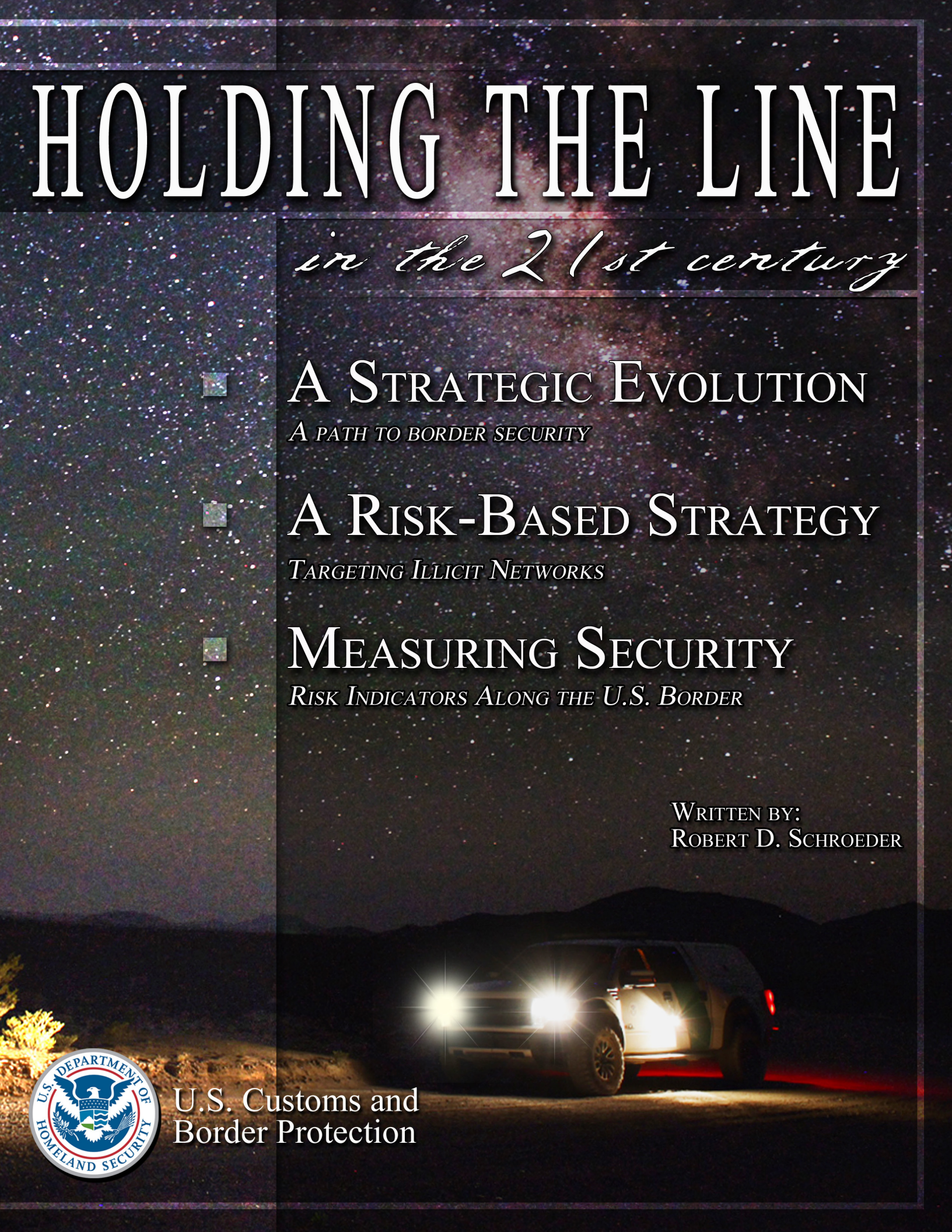

U.S. Customs and
Border Protection

FORWARD

"With the release of the 2012-2016 U.S. Border Patrol Strategic Plan, we sought to enhance the way border security operations are conducted and measured. These articles offer a glimpse into our history, our successes, our challenges, and the road that lies ahead. The history, strategies, and metrics outlined in these articles represent a small part of a much larger operational security strategy that spans the entirety of the Department of Homeland Security; the Department of Justice; the Intelligence Community; as well as, state, local, and tribal law enforcement agencies. Change is inevitable; my hope is that through these articles, one will gain a better understanding of why the U.S. Border Patrol shifted enforcement strategies in 2012, how we made that shift, and how we measure and adapt to risk along our Nation's border. Honor First!"

Michael J. Fisher
Chief U.S. Border Patrol

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A Strategic Evolution

"A path to border security"

The article represents a historical evolution of U.S. Border Patrol strategies and outlines how and why the U.S. Border Patrol changed the way it conducts border security.

Introduction

The border environment in which we live and work has changed; the Border Patrol's capabilities have changed; and the convergence of transnational criminal organizations (TCOs) and terrorist organizations through globalization has increased risk along our Nation's border.

A Strategic Evolution

Border fence in Santa Teresa, NM

"There is nothing permanent except change"
Heraclitus

The Paradox

Since 1924, the men and women of the U.S. Border Patrol have been asked to protect the United States border from all enemies, foreign and domestic; strategies and objectives have changed, yet our mission of protecting the border has remained constant. I am often asked what a secure border looks like. My response is often to ask the same question in return: "What does a secure border look like to you?" The term "secure border" means different things to different people and presents a great challenge for those whose charge it is to protect the U.S. border. How do we bring an acceptable level of security to the U.S. border while striving to embrace the freedoms and liberties that have made this country so great? What can a secure border reasonably look like?

Since the inception of Operation Enduring Freedom in Afghanistan in 2001, the U.S. military has closely monitored the international borders Afghanistan shares with Iran and Pakistan. In 2010, at the height of military operations in Afghanistan, U.S. Military troop deployments numbered close to 100,000[1], with hundreds of Unmanned Aerial Vehicles (UAV) deployed for intelligence, surveillance, and reconnaissance (ISR).[2] Yet, even with the aggressive service of these human and technology assets, the U.S. military had a vastly incomplete level of awareness and understanding of what, or how often people and things were crossing the 2,000 miles of border Afghanistan shares with Iran and Pakistan.[3] In comparison, the U.S. Border Patrol is challenged to secure the 6,000 mile land border with 21,370 agents and 10 UAVs.

While it is difficult to compare different border-security environments, an examination of Afghanistan and U.S. border-security challenges highlighted the enormous (and unrealistic) quantity of resources that would be required to guarantee the U.S. border is impervious to dangerous people or goods. In 2010, U.S. Department of Homeland Security (DHS) Secretary Janet Napolitano made the point that we live in a world where we cannot provide border security guarantees, something could always get through the U.S. border. However, what we can provide is a way to minimize the risk of dangerous goods and people crossing the border, while providing a rapid response capability to alleviate the threat should one materialize.[4]

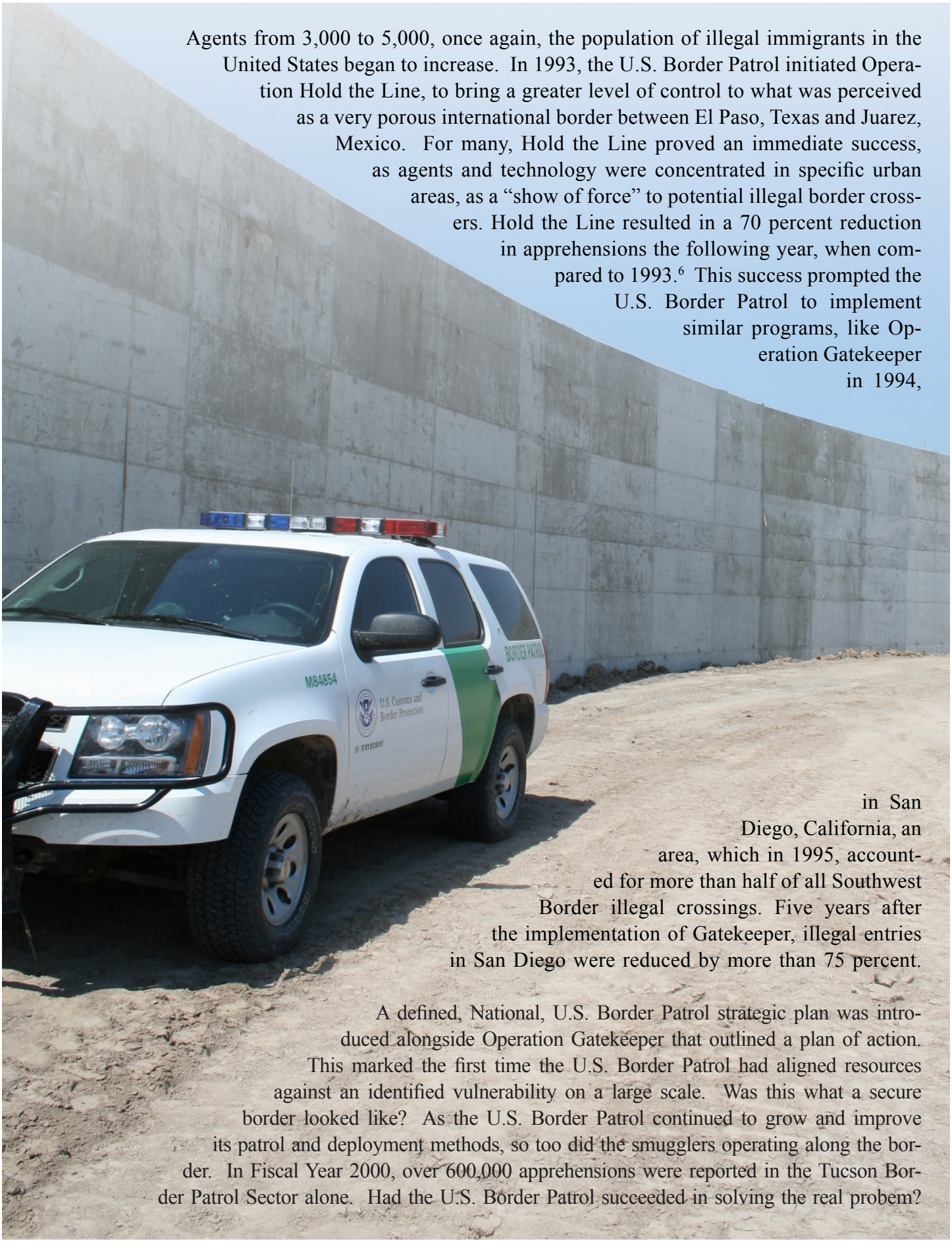
Border Patrol linewatch in 1962.

Still, the questions remain: What constitutes a secure border? How do we achieve this desired condition? How do we know when a threat materializes? It is self-evident that a border security condition characterized by the absence of crime is unattainable in a domestic law enforcement environment. Nevertheless, there are communities and organizations within the United States that advocate just that – an environment in which there is no possibility of someone or something crossing the border illegally.

In this narrow construct of what a secure border looks like, stakeholders are led to believe that simple metrics concerning activity levels, such as the number of apprehensions, or the number of Border Patrol Agents deployed to an area directly correlate with the level of security along the U.S. border. In reality, no amount of resources can guarantee a secure border. Instead, what is needed is a systematic risk analysis that can assist operators, policy-makers and stakeholders, by identifying the probability of, and degree of danger presented by threats in a specified area that can be measured against the government's ability to rapidly respond. In this way, the U.S. Border Patrol characterizes a secure border as one of low risk—where there is a high probability of detection coupled with a high probability of interdiction.

The Border Environment as it was...

From 1942 to 1964 the United States managed a guest-worker program known as the Bracero Program. Through this program the United States met its demand for immigrant labor, while ensuring adherence to immigration laws. The end of the Bracero Program, coupled with new immigration restrictions, stimulated a steady rise in illegal immigration. By 1979, an estimated 1.7 million illegal immigrants were living and working in the United States. This number grew to 3.2 million by 1986, prompting a call for immigration reform.[5] The Immigration Reform and Control Act (IRCA) of 1986 provided legal status to those living within the United States at the time of enactment and provided for an increase in the number of U.S. Border Patrol Agents working along U.S. border. Despite the increase of U.S. Border Patrol



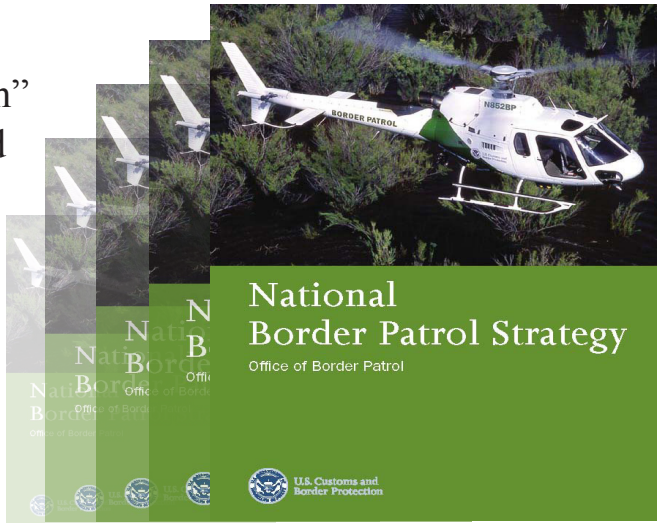
Agents from 3,000 to 5,000, once again, the population of illegal immigrants in the United States began to increase. In 1993, the U.S. Border Patrol initiated Operation Hold the Line, to bring a greater level of control to what was perceived as a very porous international border between El Paso, Texas and Juarez, Mexico. For many, Hold the Line proved an immediate success, as agents and technology were concentrated in specific urban areas, as a "show of force" to potential illegal border crossers. Hold the Line resulted in a 70 percent reduction in apprehensions the following year, when compared to 1993.[6] This success prompted the U.S. Border Patrol to implement similar programs, like Operation Gatekeeper in 1994, in San Diego, California, an area, which in 1995, accounted for more than half of all Southwest Border illegal crossings. Five years after the implementation of Gatekeeper, illegal entries in San Diego were reduced by more than 75 percent.

A defined, National, U.S. Border Patrol strategic plan was introduced alongside Operation Gatekeeper that outlined a plan of action. This marked the first time the U.S. Border Patrol had aligned resources against an identified vulnerability on a large scale. Was this what a secure border looked like? As the U.S. Border Patrol continued to grow and improve its patrol and deployment methods, so too did the smugglers operating along the border. In Fiscal Year 2000, over 600,000 apprehensions were reported in the Tucson Border Patrol Sector alone. Had the U.S. Border Patrol succeeded in solving the real probem?

Border Patrol vehicle performing linewatch duties.

Terrorism at the Forefront

"Responsibility is the price of freedom"
Elbert Hubbard



Shortly after a record number of apprehensions were experienced in Arizona, and as the U.S. Border Patrol wrestled with defining its core mission, we found ourselves in the midst of one of the deadliest terrorist attacks in American history. September 11, 2001, marked a significant change in U.S. Border Patrol priorities as terrorists hit America's homeland. The attacks on the World Trade Center towers and the Pentagon changed the lives of countless Americans and altered the priorities for many U.S. law enforcement agencies. As the identity and nationality of the hijackers came to light, a renewed sense of urgency was placed on the immigration system and enforcement agents.

In 2003, DHS was formed to, among other things, help address many of the interagency intelligence sharing gaps which the 9/11 Commission Report highlighted as shortcomings leading up to the terrorist attacks. Then DHS Secretary, Tom Ridge in speaking about the creation of DHS and ultimately Customs and Border Protection (CBP) stated "the U.S. had no architecture for the asymmetric terrorist threat that the United States now faced; it made sense to build a border centric agency to meet the threats of the 21st century."[7] The Office of Field Operations (OFO) and the U.S. Border Patrol were combined into one agency to facilitate information sharing and to integrate operations for securing U.S. borders, at and between the ports-of-entry. The Office of Air and Marine (OAM) was formed in 2006 to bring all CBP pilots under a single entity, joining the U.S. Border Patrol and OFO as the third operational component of CBP.

In 2004, the U.S. Border Patrol issued its first strategy as a component of DHS. This strategy was a resource-based approach focused on what the U.S. Border Patrol termed "operational control." Operational control was defined as the ability to detect, respond, and interdict border intrusions in areas deemed as high priority for threat potential or other national security objectives, through varied deployment combinations of personnel, technology, and infrastructure. This strategy was a significant step for the agency as it endeavored to correlate and quantify a metric that illustrated a level of control or security at specific points along the border. David V. Aguilar, the Chief of the U.S. Border Patrol at the time, emphasized the "gain, maintain, and expand" principles that illustrated the next step in Border Patrol security operations.[8] Simply put, areas or miles along the border were considered under "operational control" when a certain number of resources were deployed in a certain area over a period of time that allowed for a higher probability of deterrence or arrest. Was deterrence and arrest a path to a secure border?

The 2004 strategy also focused on turning the U.S. Border Patrol into a centralized, command-driven agency that emphasized a flow of information from the CBP Commissioner to the Chief of the Border Patrol, and on to field Commanders, while providing flexibility at the lower levels for mission execution. This provided a well-defined common operating picture in which national strategic guidance could be disseminated uniformly and national threats could be addressed strategically throughout the 20 U.S. Border Patrol Sectors.

This organizational realignment helped guide the U.S. Border Patrol into a national-security posture and prepare for the significant growth that would soon be realized. During that time, the U.S. Border Patrol diligently pursued the right combination of personnel, technology, and infrastructure to establish operational control along the Nation's border.[9] This new strategy represented a positive step toward greater border security and laid the foundation for a critical increase in resources; however, the 2004 strategy never addressed the adversaries' capabilities to hinder border security efforts. The 2004 Strategy was simply a reaction to illicit activity levels along the U.S. border.

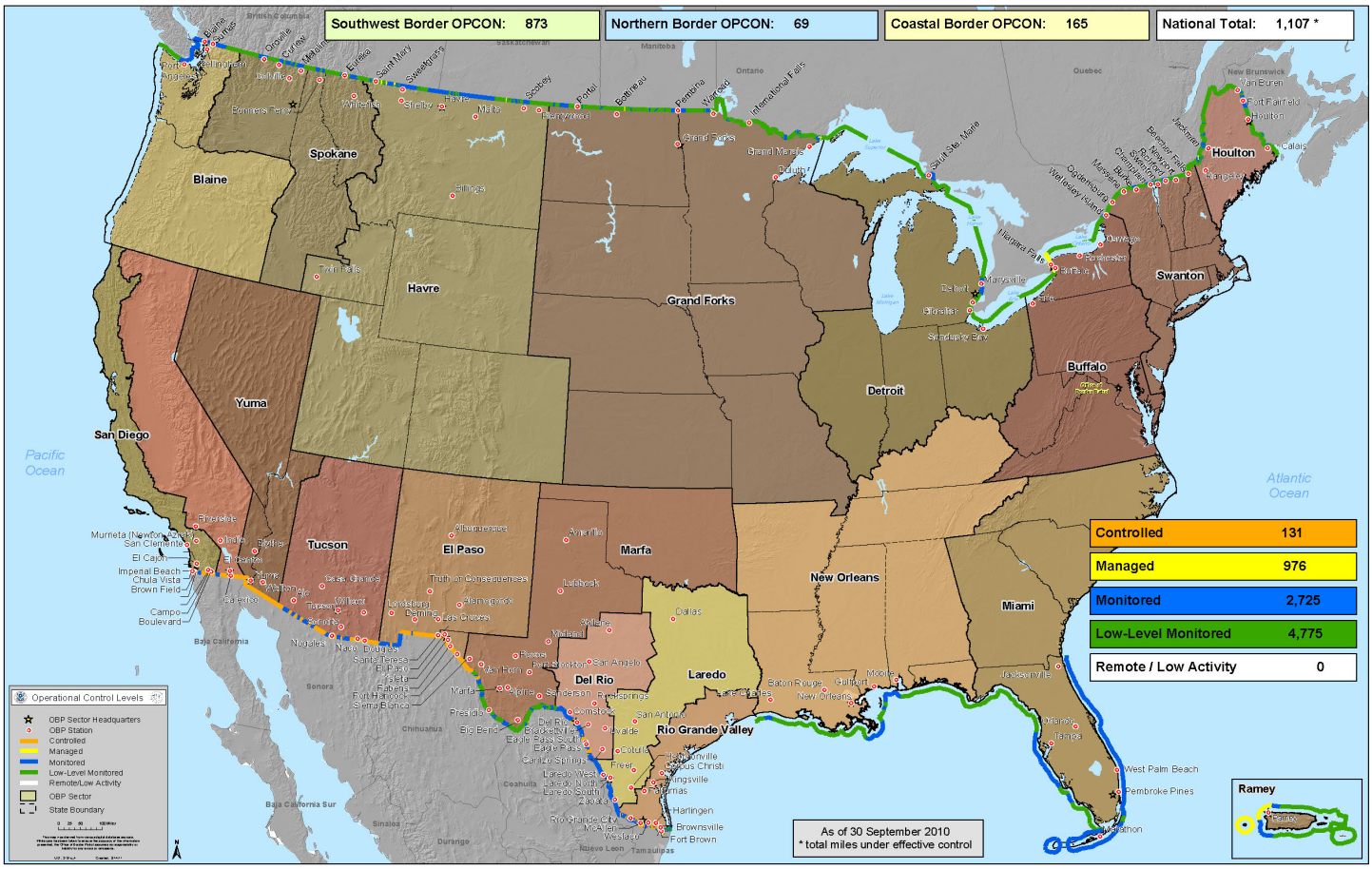
The Buildup

From 2004 through 2010, the U.S. Border Patrol saw an unprecedented buildup of resources that increased its ability to decrease the flow of illegal activity and combat drug and alien smuggling organizations along the border. New technology and long-range reconnaissance equipment acquired from the U.S. military assisted with increased situational awareness, after the U.S. Border Patrol re-tooled and distributed it to sectors along the Southwest Border. The use of land-based radar systems became widespread and provided a greater capability in the deserts of Arizona and the boot heel region of New Mexico. Additionally, during the latter part of 2010, the U.S. Border Patrol implemented post-apprehension measures, specifically the Consequence Delivery System, which was designed to apply the most effective and efficient consequences to apprehended aliens, in order to reduce the likelihood that a person would attempt illegal reentry.

Integrated missions conducted with the Department of Defense, such as Operation Jumpstart in 2006, which marked the largest deployment of National Guard troops to a domestic border security mission in modern history, played a key role in increased security along the U.S. border. National Guard Entry Identification Teams (EIT) deployed across the Southwest Border, alongside U.S. Border Patrol Agents, in an effort to fill capacity gaps, while we concurrently trained 6,000 new Border Patrol Agents. Through this effort, the U.S. Border Patrol continued to gain greater situational awareness of the border environment. There were now more personnel deployed to secure the 2,000 mile Southern Border with Mexico than at any other time in America's modern history. Had we finally solved the border security issue, or simply treated a symptom of a much larger problem?

While Operation Jumpstart was under way, DHS' Secure Border Initiative (SBI) began. SBI was designed to enable the U.S. Border Patrol to gain greater situational awareness along the border through an integrated technology deployment that included underground sensors, camera towers, and other detection equipment connected to a central location to facilitate a common operating picture and streamline interdiction efforts. This program was later terminated by DHS because of cost overruns and unforeseen obstacles that simply could not deliver on the promise of increased situational awareness. Instead, DHS opted to focus on mobile solutions instead of fixed assets; many of the mobile land-based radar trucks which were a product of SBI are still used by the U.S. Border Patrol today.

Trainees at the Border Patrol Academy



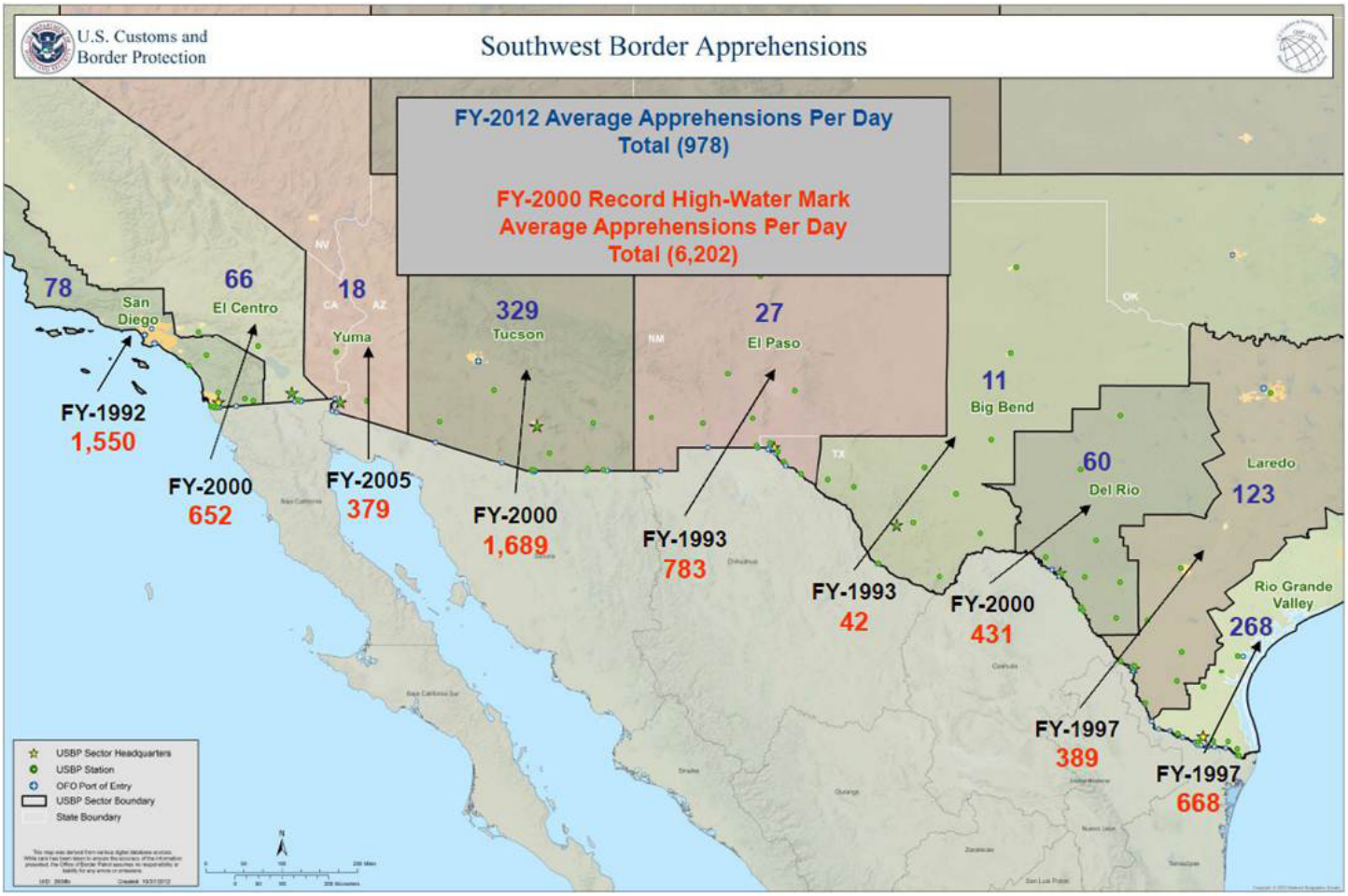
Map showing miles of Operational Control

Where much is given, much is required

As record level resources were deployed to the border, a corresponding drop in apprehensions was observed. However, after spending approximately $3.5 billion on border security in 2010, only a small percentage of the U.S. land border, between the ports-of-entry, was considered under "operational control" by the standing definition.[10] As with any wicked problem, implementation of a solution created many unseen second - and third - order effects.[11] During these resource-building years, several dynamics emerged that impeded border security. While areas in which significant increases in resources were deployed saw illegal entries and apprehensions diminish, the gains were offset by increases of activity within other, less-controlled areas. In some instances, there appeared to be a full displacement of trafficking organizations to other geographic areas where fewer resources were deployed (often articulated as the balloon effect). Still, in other places, entrenchment became an issue, where smuggling organizations and their resources facilitated the rapid influx of infrastructure on the Mexican side of the border.

After the successful deployment of law enforcement resources in urban areas such as San Diego, CA; Nogales, AZ; and El Paso, TX; the smugglers changed tactics and moved to the sparse desert regions of Arizona.[12] This was an expected effect, and at the time, looked upon as a success, as the open deserts gave Border Patrol Agents more time to detect and apprehend smugglers, rather than the mere minutes agents were given to respond in most urban environments. Was pushing traffic to sparsely populated areas the best way to combat smugglers?

Consider the case of Altar, Sonora, Mexico; a town 60 miles south of the Arizona/Mexico border. Altar quickly became a staging point for smugglers where as many as 60 buses, each day, arrived with immigrants intending to cross illegally into the U.S. This organized buildup of infrastructure in Altar, Mexico, by smugglers, was different from anything the U.S. Border Patrolhad experienced in the past, as there was no major urban area north of the international border. Rather the west deserts of Arizona provided little infrastructure that could be used by agents to maneuver and intercept smugglers once they crossed the U.S bor-



Map showing average apprehensions per day High Water marks

der. The smugglers developed networks of "spotters" and supply routes in Mexico to facilitate their illicit trade faster than the U.S. Border Patrol could counter through the deployment of infrastructure, technology, and personnel, which the standing 2004 strategy was based upon.

These results led the U.S. Border Patrol to acknowledge that no amount of resources could guarantee an immediate or sustained interdiction capability. The U.S. Border Patrol sought an acceptable, but measured enforcement and interdiction capability, to achieve an increased level of security sought by the public. Essentially, the 2004 strategy was designed to reduce the flow of illegal entries and maintain an acceptable level of cross-border incursions, through the deployment of interdiction resources. However, operational experience and the adaptability of smuggling organizations made clear that a continual buildup of resources along the border alone could not address root causes of cross-border illicit activity. What could an individual interdiction agency do to combat the root causes of illegal entries?

With increased resources and larger budgets came the heightened expectation of greater security and results. Historically, the U.S. Border Patrol used apprehensions as a metric for gauging success, focusing on outputs rather than outcomes. In 2011 with unprecedented agency growth, through an increase in Border Patrol agents and resources, aligned with an increase in Defense Support for Civil Authorities (DSCA) operations initiated through Joint Task Force-North, the U.S Border Patrol saw its nationwide apprehensions reduced 78 percent, as compared to statistics from 2000. With narcotic seizures on the rise and the decrease in illegal alien apprehensions attributed to a buildup of personnel, technology, infrastructure, coupled with an effective Consequence Delivery System, the U.S. Border Patrol realized great gains in reducing illegal activity between the ports-of-entry.[13]

These significant gains and increased security caused many to ponder what the next step might be. There was little doubt that successes derived from the buildup of personnel, technology, and infrastruc-

Walking out a group of arrested illegal aliens

Truck in Mexico transporting people to staging area

ture had a positive impact on reducing illegal activity along the U.S border, but were we solving the whole problem? From this question came the understanding that the U.S. Border Patrol had effectively treated symptoms of a larger problem. With the significant reduction in apprehensions and the persistent thickening of the enforcement line between 2004-2011, the Border Patrol needed a better way to deploy its resources. What the Border Patrol needed was a strategy to attack the root cause of illegal cross-border traffic and a better way to measure its performance. This was noted in a 2011 Government Accountability Office report that highlighted the missing risk analysis piece that called for the continual deployment of resources in light of decreasing activity levels.[14]

Skywatch Tower

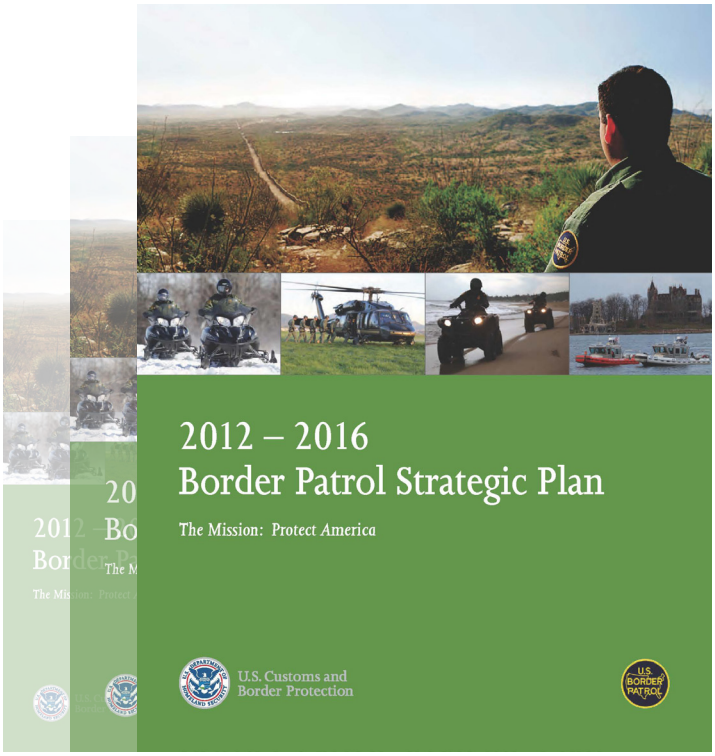
"If I had eight hours to chop down a tree, I'd spend six hours sharpening my axe"
Abraham Lincoln

A Risk-Based Approach

In May 2010, Michael J. Fisher assumed command of the U.S. Border Patrol and began to evaluate its strategy and overhaul how it conducted and measured border security operations. The 2012–2016 Border Patrol Strategic Plan was released at a time when illegal apprehensions between the ports of entry were reduced to levels not seen since 1970 and a record number of Border Patrol agents (21,370) were deployed along our Nation's border.[15] The Strategic Plan described the use of a risk-based strategy and represented a significant shift in how the U.S. Border Patrol would pursue and determine resourcing levels along the Nation's border.

The Strategic Plan outlined two high-level goals for the U.S. Border Patrol: 1) Secure the Nation's border through the application of Information, Integration, and Rapid Response; and 2) Strengthen the Border Patrol through an investment in the workforce and expansion of the organization's capabilities, including its personnel. These two goals, coupled with a shift from a resource-intensive deployment method to a risk-based method, initiated a new strategy for the U.S. Border Patrol.

Risk-based strategies are plentiful in both private and public sectors; particularly, in cases where cost is a significant factor in whether a mission is undertaken. The National Aeronautics and Space Administration (NASA) has used a risk-based strategy for years; most notably in the case of the International Space Station. NASA demonstrated the ability to identify the highest risk areas for space debris damage on military satellites and space station facilities with a high probability.[16] The possibility of an object hitting the space station is calculated through careful analysis of multiple factors categorizing specific areas where the probability of impact is greatest. Areas identified as the most vulnerable are addressed with a variety of mitigation design techniques, including structural reinforcements.[17] In some instances, if the risk is deemed high enough, the space station will be shifted to mitigate the risk in what is known as a debris-avoidance maneuver.[18] Today it costs about $10,000 to put a pound of payload in earth's orbit; the alternative to this risk-based approach for building the International Space Station would require equal reinforcement of all areas, regardless of debris-impact probability. This would raise the cost exponentially and could make many NASA projects, such as the deployment of the International Space Station, unattainable.[19]



2012 - 2016 Border Patrol Strategic Plan

The process NASA uses to mitigate risks through an analysis of the probabilities and vulnerabilities is similar to the methodology the U.S. Border Patrol is adopting to address the greatest risk along the border. Compare for a moment the reinforcement of the International Space Station to the U.S. International border. At the strongest point in terms of resources and personnel, Arizona employs approximately 5,000 Border Patrol agents in Tucson and Yuma Sectors to patrol 388 miles of the Southwest Border. To reach this level of resources along the remaining 5,600 linear miles that make up the land border with Mexico and Canada would require more than 77,000 U.S. Border Patrol agents with a minimum yearly estimated budget of $12.6 billion.[20] A substantial increase considering all major offices of CBP reported 61,354 full-time employees with an enacted budget of $11.6 billion in 2012.[21] Even with these increased numbers, detection and apprehension could not be guaranteed.[22] This new risk-based approach to border security was a direct re-

sult of the shifting environment in which Border Patrol agents work. Today, Transnational Criminal Organizations (TCOs) use social networking and many forms of advanced electronic equipment to gain real-time counter-intelligence on Border Patrol operations. This facilitates a greater situational awareness within their ranks and creates a very elusive network, one in which illicit operations can be halted and diverted to other areas at a moment's notice. For the U.S. Border Patrol to succeed, it would have to shift the way we conducted operations. The days of agents lying-in-wait for hours at a time or simply saturating an area with increased patrols and manpower were old techniques that would not be met with the same success against the new networked TCOs.

The U.S. Border Patrol evolved to meet the challenges that a new networked TCO presented, and with it, our capabilities increased. Relying heavily on technology developed for the military, the Border Patrol received an influx of new ISR equipment to help with the border-security mission. This included advanced thermal imaging technology used by the military for targeting and the increased use of UAVs that proved successful to the military in Iraq and Afghanistan to provide real-time target tracking. While many of these capabilities have been around for years, it is the change detection technology that is poised to have the greatest impact in how the U.S. Border Patrol gains situational awareness and deploys it forces through a risk-based strategy.

Change detection techniques - elucidating the actions of an adversary by looking at the traces they leave in an operational environment have been used for centuries, but in recent years they have been advanced by technology. This methodology is now used to garner greater situational awareness in remote border zones along the U.S. Border. In effect, this allows the U.S. Border Patrol to gain better situational understanding and deploy agents where there is a higher probability of incursions as opposed to deploying agents on the possibility of something happening.

Infrared camera footage from UAV showing smugglers in the New Mexico.

In the past, the U.S. Border Patrol has been criticized for only tracking apprehensions without regard to what might have escaped detection. While the U.S. Border Patrol does statistically capture what we know is not caught, there is always the unknown. Initial testing and deployment of change detection technology along the Southwest border shows the potential to help monitor activity levels in remote areas once unreachable with regularity by Border Patrol agents due to terrain features and resourcing constraints. With the advancing change detection technology coupled with verification by Border Patrol agents, we increase the accuracy when reporting illegal cross border activity.

While increased deployment of technology and boots on the ground are helping the Border Patrol with the first goal of the new Strategic Plan to secure the Nation's border, it is the intellectual property and knowledge that is helping to fulfill the second goal – Strengthen the Border Patrol. As part of CBP's expanding efforts to train its current and future leaders with the best practices adopted by interagency partners, Border Patrol agents have attended a multitude of advanced learning academies offered by the Department of Defense (DOD), and top academic institutions. These schools provide instruction in campaign planning, critical thinking, and crucial leadership lessons vital to the continued success of the U.S. Border Patrol. Many are surprised to learn that while there are many short training opportunities throughout a Border Patrol agents career, there are only two required courses after the basic Border Patrol Academy; Supervisory Leadership Training and the Border Patrol's Technical Training Class, each of which are two weeks in length and only required upon entering into a first-line supervisory role. After these courses, it is simply a matter of on the job training and the building of mentoring relationships where an agent learns the requirements of the position.

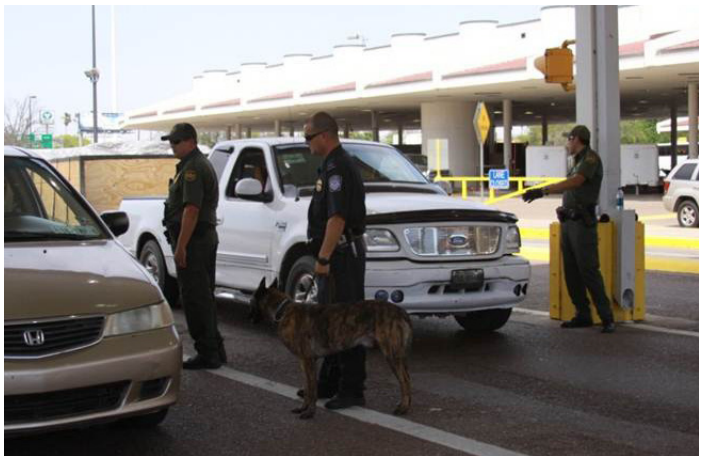
The South Texas Campaign

Many tactics, techniques, and procedures employed by the U.S. Border Patrol mirror what DOD has done for years. For instance, the South Texas Campaign (STC), the first campaign executed against the new 2012-2016 Strategic Plan, was partly a product of lessons learned by DOD on the battlefield. While the Border Patrol has for years attempted to coordinate investigative and interdiction efforts, STC has made great strides in accomplishing the coordinated efforts of intelligence, investigation, and interdictions through a unified command, and a three-star Commander who is delegated command and control over CBP components in the South Texas corridor to accomplish five key objectives.

With a single commander coordinating CBP efforts in South Texas, the need for individual CBP components to seek headquarters approval for multiagency operations was eliminated. With the intent of diminishing the TCO's capabilities by attacking their networks on a large scale, the STC seeks to cause a persistent disruption by concentrating operations against key targets responsible for a majority of crime in the South Texas corridor. These targets are selected through a risk matrix and mutually agreed upon by all members of the unified command in South Texas. STC represents the new strategy and fundamental shift in the approach the U.S. Border Patrol takes in pursuit of border security. Through this effort, together with technological advances, CBP is evolving in direct response to the changing border environment, and the increased capabilities of both friendly and enemy forces.

The changing environment along our borders has necessitated a shift in the way the U.S. Border Patrol provides security to our Nation. Increased cooperation, a realignment of command and control systems, technological advances, and increased collaboration with DOD components has proven to be a step in the right direction. There is no single answer to border security; as we move closer to attacking the TCO centers of gravity, they evolve. Today we see the growth and convergence of two networks – terrorism and crime.

Border Patrol agent on river in South Texas



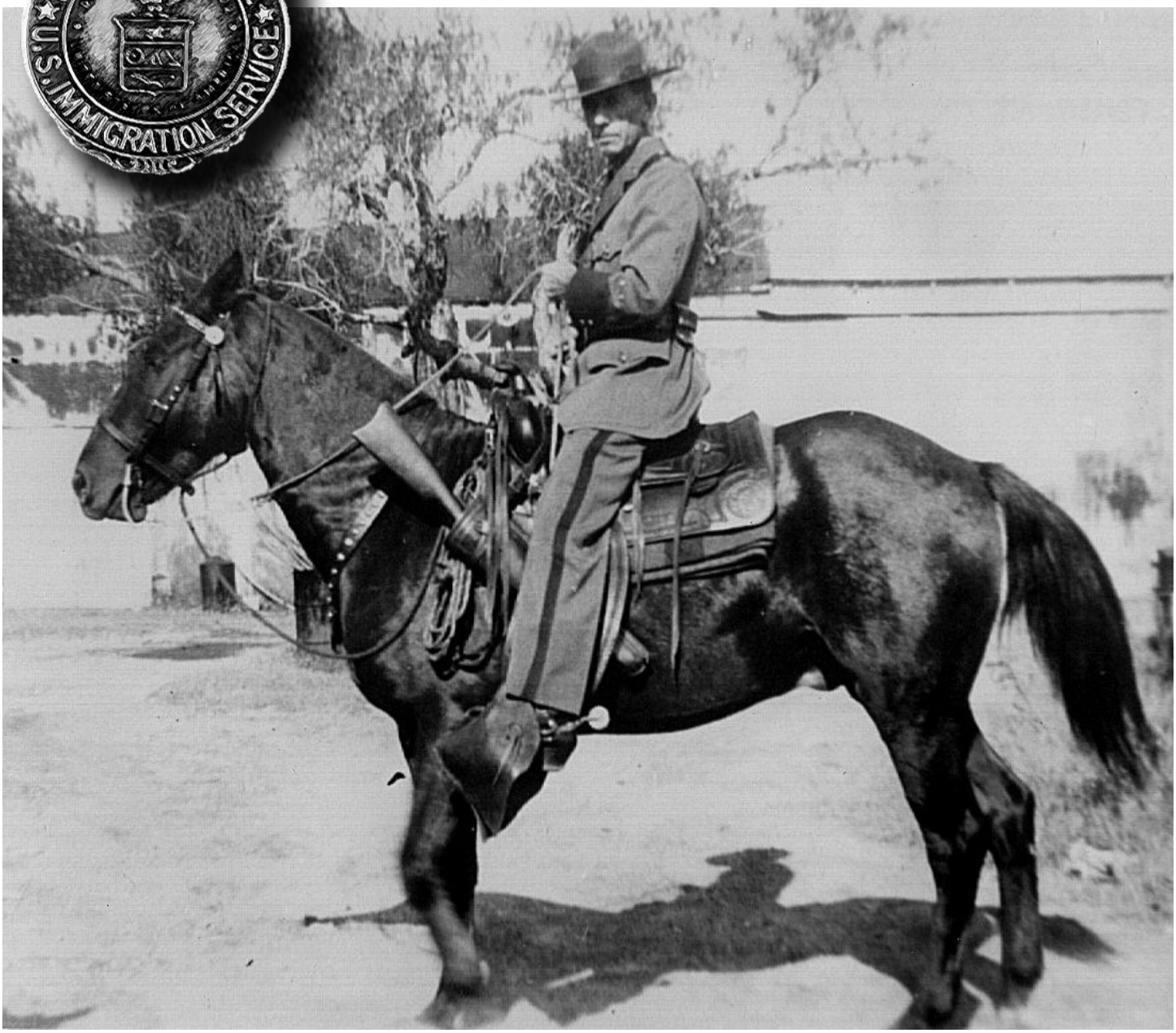
OFO and USBP agents conducting outbound operations in South Texas

Marine patrol in South Texas

Multi agency operation at stash house in South Texas

Conclusion

The new border security environment has required the application of new technology and tactics that have increased the capabilities of frontline personnel commensurate to the evolving threat. The convergence of two threats facilitated through globalization and rapid social networking media has aided in the proliferation of deadly training manuals and propaganda videos, which in the past would have only been available in isolated training camps in remote countries. Against this backdrop, we cannot continue to plan operationally and conduct operations against this collective adversary in the same way we did in 1994 or 2004. The first step in beating the illicit network is becoming a network yourself and leveraging the same means and ways used by the adversaries to attack their critical vulnerabilities.[23] Through globalization and convergence, we see the possibility and probability of TCO and terrorist synergistic efforts that are changing the face of how border security must be conducted.[24] Today we stand at the precipice of a monumental shift in the way we conduct border security. Where the de-



Horse Patrol circa 1940.

ployment of resources is concentrated not on activity levels but against the greatest threats identified through intelligence, investigation, and careful analysis of the adversary. With increased globalization through advances in mobile communications, the environment the U.S. Border Patrol is charged with protecting will continue to change at a relentless pace. We will do well to remember that we face a determined and constantly adapting adversary and to combat this threat, we too must adapt quickly. Never has the U.S. Border Patrol thought and initiated such a dramatic shift in our enforcement posture, yet never have we faced such an elusive and capable threat. The words of Carl von Clausewitz are as true today as they ever were; no plan survives first contact with the enemy, as they too have a vote.[25] We understand now better than ever that the tactics and strategies of yesterday must change to meet the evolving threats and risks of today; while fully aware, the plans we make for the risks of today are not necessarily the plans and tactics that will succeed against the risks of tomorrow.

Horse Patrol circa 2010.

End Notes

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A Risk-Based Strategy

A Risk-Based Strategy

"Targeting Illicit Networks"

This is the second in a series of articles outlining how and why the U.S. Border Patrol shifted from a resource to a risk based strategy. This second installment outlines how the integration of Planning, Risk Analysis, and Intelligence was implemented to increase situational understanding.

Introduction

In 2012, The U.S. Border Patrol changed the way it conducts security along our Nation's border. With the release of the 2012–2016 Border Patrol Strategic Plan, the U.S. Border Patrol evolved from a resource-based to a risk-based strategy. Historically, the U.S. Border Patrol gauged border security on the number of illegal aliens apprehended, drugs seized, and resources deployed in a specific area. While these are important statistics, taken alone, they prove a poor measure of border security. Today the U.S. Border Patrol characterizes a secure border as one of low risk, where there is a high probability of detection coupled with a high probability of interdiction. How then is a high probability of detection and interdiction achieved? To answer these questions, the U.S. Border Patrol adapted its approach to border security to consider the changing environment along the U.S. Border, the increased capabilities of both friendly and adversary forces, and the convergence of illicit networks. In constructing this approach, the U.S. Border Patrol worked with the Department of Homeland Security and the Department of Defense to retool its intelligence and planning methodologies to develop a framework for implementing a risk-based approach to border security.

"There are known unknowns. ...But there are also unknown unknowns."
Donald Rumsfeld

First Things First – Situational Awareness

The Department of Homeland Security defines risk as "the potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by its likelihood and the associated consequences." The primary risk to border security is the probability of dangerous people and things successfully entering the United States either detected or undetected. Short term risk (gap) mitigation may be achieved by taking a reactive approach toward Transnational Criminal Organizations (TCOs) and simply aligning enforcement efforts to increase interdiction; however, long-term risk management requires much more. How then does the Border Patrol know where and what their immediate and long-term enforcement gaps are? In order to answer this question, the Border Patrol developed a method to achieve and maintain situational awareness along the U.S. border. This methodology would serve as the foundation for the U.S. Border Patrol's risk-based strategy.

To gain greater situational awareness, the U.S. Border Patrol uses two methods, one traditional and one technological. The deployment density method leverages U.S. Border Patrol's *traditional* organic capabilities of sign cutting and line watch - the art of how a Border Patrol Agent finds and tracks smugglers crossing the border through coordinated patrols. This is done in areas of high threat and high activity along the U.S. border. This requires a flexible force to deploy and redeploy as threats ebb and flow between the ports of entry. The use of geospatial intelligence (GEOINT) is one component of the U.S. Border Patrol's *technical* method. Used in areas characterized as low risk or traditionally identified as low activity, GEOINT resources maintain situational awareness in areas with a lower density of Border Patrol Agents where persistent deployment is not feasible due to terrain or location. The use of GEOINT involves gathering and analyzing imagery and geospatial information for the purpose of detecting change within specific geographical areas along the U.S. border. GEOINT capabilities typically come from high altitude aerial platforms equipped with intelligence, surveillance, and reconnaissance (ISR) technology, such as the Customs and Border Protection (CBP) Office of Air and Marine's (OAM) Unmanned Aircraft System (UAS). GEOINT events trigger the deployment of U.S. Border Patrol rapid response teams to investigate when a potential threat has been detected. After all, to know of an imminent threat and lack the capability and resources to respond are equally detrimental to border security in a risk based – rapid response approach. Before GEOINT the U.S. Border Patrol only had situational awareness where agents were deployed. Today the combined capabilities from both traditional and technological methods have the potential to provide persistent and accurate situational awareness along the U.S. border.

A Tragedy Hits Home

On July 23, 2009, U.S. Border Patrol Agent Robert W. Rosas Jr. was ambushed and murdered by smugglers near the border fence in Campo, California. Immediately after the tragedy, federal, state, and local agencies provided strong and united support as the U.S. Government sought to bring the perpetrators to justice. Investigative agencies and intelligence agencies alike tracked down every possible lead and shared every possible piece of information available to assist with the effort. Wire diagrams were drawn and smuggling cells were linked to uncover criminal networks. Every possible smuggling organization and criminal that operated within the vicinity of the U.S. border where Agent Rosas was murdered was identified and targeted. Over the course of three weeks, the criminal activity level along a nine mile stretch of the U.S. border where Agent Rosas was murdered dwindled to almost nothing. It became nearly impossible for smugglers to operate in the area; we knew the suppliers, the transportation networks, and the smugglers' customers. We branded the smuggling organizations operating in the vicinity as targets. In short, criminals couldn't operate within the area without being caught and punished swiftly. Through this collective effort, the murderer was identified and publicly announced; the U.S. Border Patrol made it known that they were after him and anyone connected to him was a target. The murderer was eventually captured and brought to justice.

This tragic incident reminds us of the danger Border Patrol Agents face every day. At the same time, it showed the U.S. Border Patrol how effective an integrated effort could be when focused on specific targets. It also revealed that establishing the level of security along the entire U.S. border that resulted in the wake of Agent Rosas' murder would require more than the U.S. Border Patrol could deliver alone. Successes of this magnitude needed an integrated effort that focused on attacking vulnerabilities at the heart of the TCO network.

The Black Swan - A Business Case

"Things always become obvious after the fact."
Nassim Nicholas Taleb

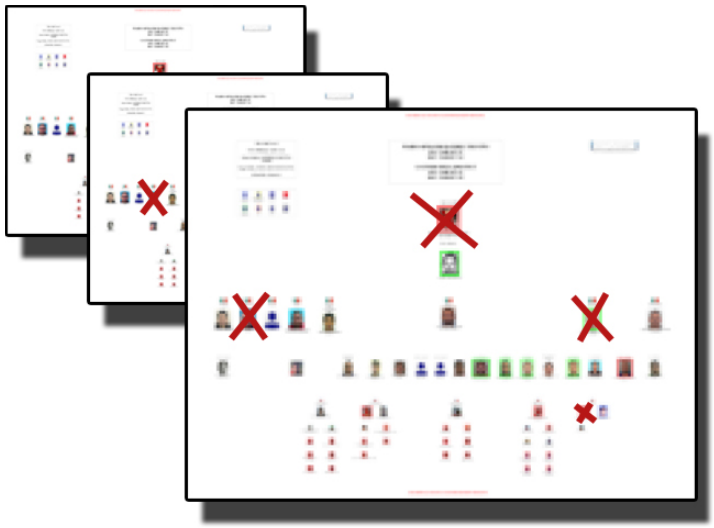
In 1697, Dutch Explorer Willem de Vlamingh discovered black swans in Western Australia.[1] Until 1697 it was taught and widely accepted as fact that swans could only be white. The discovery changed the understanding of the world, as the possibility of black swans immediately became fact. The term "black swan" is used today to describe events that lay outside the realm of expectations, yet after the fact become rationalized and attributed to something that was inevitable. These types of events are explained as low predictability, high impact discoveries that break all traditional paradigms.

The South Texas Campaign (STC), the first campaign initiated using the risk based approach, was based primarily on leading edge indicators that showed a shift in illicit activity patterns to the South Texas Corridor which extends from Del Rio, Texas to the Gulf of Mexico, covering approximately 700 land border miles and 300 miles of coastline. The STC was established to deprive TCOs of the ability to exploit vulnerabilities in the South Texas Corridor through a targeted, integrated approach. The planning and execution of the campaign was designed to establish the model for how CBP would implement an integrated risk-based approach to border security between the ports of entry, using the three pillars of information, integration, and rapid response to guide the planning process. To succeed, the Border Patrol had to build strong and enduring relationships with its sister CBP components, the Office of Air and Marine and the Office of Field Operations, as well as harness the authorities and resources of other federal, state, and local law enforcement agencies. These relationships had to extend beyond cursory efforts of collaborating, sharing, and co-location, typical of intergovernmental efforts. What the STC had to do was **integrate**. It had to bring internal and external agencies together to direct their resources against the same threats; it had to replicate the integrated efforts seen in California after the murder of Agent Rosas. The U.S. Border Patrol had found its black swan – *unrestrained integration*, where agencies were not vying for credit, or sensational publicity, but were focused on a mutual threat and common enemy.

To achieve integration the STC spearheaded the creation of a South Texas Unified Command where intelligence, interdiction, and investigative agencies were invited to integrate their intelligence, resources, and authorities to combat cross border criminal activity in South Texas. The STC used a CARVER matrix (Criticality, Accessibility, Recuperability, Vulnerability, Effect, and Recognizability) to rank criminal targets operating in the South Texas Corridor responsible for a majority of the illicit activity.[2] These targets were then shared amongst the Unified Command members in South Texas for a discussion and evaluation of intelligence and analysis that the law enforcement community possessed on the ranked targets.[3] The targets were then voted on and each member of the Unified Command agreed to support and apply their respective authorities and resources to focus operations against the agreed upon targets in an effort to degrade their illicit networks. After this, a center of gravity (COG) analysis was done on the targets to identify the specific ends (objectives), means (critical requirements), and ways (critical capabilities) used by the targeted networks to further their illicit activity. Through the COG process, the critical vulnerabilities of the targets were identified, revealing the best avenue for degrading known TCO networks operating in the South Texas Corridor.

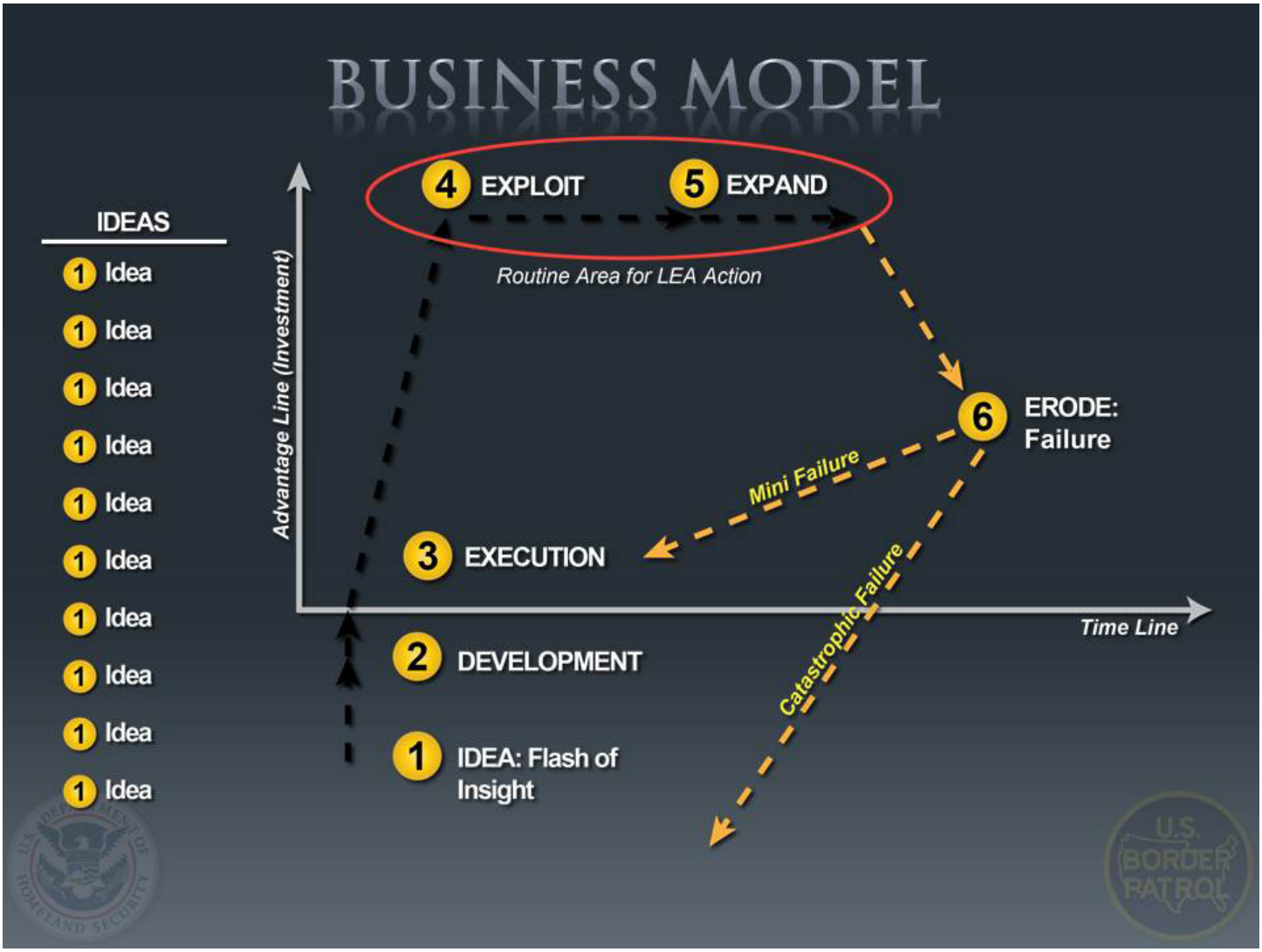
As the STC and the Unified Command refined the targeting process, Joint Targeting Teams (JTT) comprised of intelligence, investigation, interdiction, and prosecutorial components were developed, whose sole purpose was to focus their combined resources against these prioritized TCOs to uncover and sever illicit networks. Through these collaborative efforts, CBP established the framework for a targeted enforcement model by concentrating on the TCOs' critical vulnerabilities and requirements. The STC represented a major change in the U.S. Border Patrol's main effort to target TCO capabilities – not simply lining resources up to interdict more products. One of the first comments I received after delivering a brief to interagency partners on the South Texas Campaign's strategic objectives was how much it made sense to focus on the main facilitators of criminal activity and the illicit networks used by TCOs. Had the Border Patrol not been doing this all along? The answer was no. In 2004, with the terrain denial strategy of gain, maintain, and expand, the U.S. Border Patrol imagined changing the environment to make it easier to interdict and seize more illegal aliens and drugs through a thickening and expansion of the interdiction line alone. The targeted, risk-based approach by the U.S. Border Patrol is an evolution, made possible by the attainment of new ways (capabilities) and means (resources) brought about by the build up from 2006-2010 that doubled the size of the U.S. Border Patrol and necessitated by the convergence of illicit networks.

The law enforcement agencies participating in the South Texas Unified Command gauge success through their ability to weaken TCOs' illicit networks and lagging indicators that indicate changing conditions on the ground. By identifying and attacking TCOs' critical capabilities, we diminish their capacity to operate, rather than simply pushing criminal traffic to other areas along the U.S. border. The idea that the U.S. Border Patrol can bring security and safety to the U.S. border by simply increasing the enforcement and interdiction capability without addressing the critical requirements and the driving force behind them is a fallacy. Rather, you must target the sources of their strength – their shelter, methods of sustainment and manufacturing, transportation networks, and ultimately eliminate their zones of impunity.



To illustrate the difference in outputs and outcomes, let us consider a typical business model. A business cannot be defeated by simply arresting a portion of the products. Free markets would simply tell us that the price of the remaining products would rise (assuming demand remains constant) to ensure the same, if not greater profit margin for the same product. Let us assume for a moment that all illegal drugs and aliens could be interdicted at the border – would that bring a greater level of security? Short term, maybe; long term, no. TCOs would simply change the product they are offering or move to another industry all together.

The logic is simple, TCOs smuggle products and conduct illicit business because they make money at it - this is the sole purpose of a business. The U.S. Border Patrol continually intercepts illegal goods and people along the border, and yet the smuggling continues. TCOs would cease to exist if they did not profit from it. The U.S. Border Patrol no longer intercepts bootleg alcohol along the border not because we became so good at it, but because there is no profit in it. Smugglers simply switched to a different commodity – people and drugs. With the passing of the Immigration Reform and Control Act in 1986 the U.S. Government increased the punishment for hiring illegal aliens, yet the illegal activity continued. Why didn't stiffer fines and the increased enforcement by U.S. Border Patrol agents stop the illegal activity? Mark Kleimann a professor at the University of California argues that it is not the severity of the punishment but the high probability of swift apprehension and punishment that inhibits the initial illicit actions. How then do we ensure swift punishment that breaks the smugglers will and ability to continue the illicit activity? We make it unprofitable. Consider the business model below.[4]



In this TCO business model, the idea or flash of insight to make money and development of the illicit process are established by the criminal organizations and continues unabated to the execution phase where the idea is exploited to make money. The idea is then expanded upon to increase profits as the network expands. Typically, for interdiction agencies, we enter the business model at the exploitation and expansion phase to interdict the product of the criminal enterprise, long after the idea has been developed and exploited. If we focus efforts against the TCO business model through enhanced interdiction efforts, then we possibly degrade the TCO's ability to make profits leading to a mini failure. In this business model TCOs simply move to execute and exploit a different product, or the same product in a different area, but the business construct remains. Even with the immense amount of resources applied to the border, TCOs still succeed at making money; we know this because they continue to conduct illicit business.[5] For many years the U.S. Border Patrol has been battling a highly adaptive and very profitable business model, one in which the TCO business charges a fee for a service (smuggling across the border) only to have the U.S. Border Patrol guarantee repeat business as our capability to interdict and return the product (illegal aliens) increased. Thus the U.S. Border Patrol has been caught in a vicious cycle, only to see our greatest strengths (interdiction capability) used against us. TCOs welcome the return of deportees from the U.S. to their home country where the smugglers simply collect additional fees for the same service again and again. In some instances the U.S. Border Patrol has become so good at interdiction and the probability of detection and arrest so great, that smugglers are offering exorbitant one time fees with a guarantee that they will guide them across as many times as it takes to successfully enter the U.S. illegally.[6]

The only avenue that can effectively impact TCO business practices is a deliberate shift from the outputs and products of a TCO, to a targeted approach that identifies and disrupts their critical requirements during the idea and development phases – this cannot be done with interdiction alone. To accomplish this, the U.S. Border Patrol will need information from intelligence agencies and integration with investigative agencies. Hence, the black swan - why not create a condition where the concentration is not on outputs or products through interdiction alone, but an environment where it is near impossible to move any illicit product through a targeted effort against illicit networks? The STC thus far, has been successful at identifying and targeting the critical vulnerabilities and capabilities of the adversary by focusing significant resources and building an enforcement coalition to disrupt TCO networks. Focused integration is the only way to have a lasting effect on the criminal enterprise. These revelations came in no small part by the ensuing events after the murder of U.S. Border Patrol Agent Robert W. Rosas Jr.

Tools of the Trade

As the U.S. Border Patrol increased situational awareness through the creation of friendly networks and increased integration, tools were developed to guide the implementation of best practices and lessons learned. In some instances current processes were refined; in other areas, processes were created to directly support a risk-based approach. Since 2012, three processes have been distributed for use by the U.S. Border Patrol: Threats, Targets, and Operations Assessment Model (TTOA); Intelligence Preparation of the Operational Environment (IPOE) and; the Border Patrol Planning Process (BP3). All three processes were developed from a multitude of sources, but none more than the Department of Defense Joint Publications.

Threats, Targets, and Operations Assessment

"Never assume away the capabilities of your enemy."
General "Stormin' Norman" Schwarzkopf

Information leads to situational awareness; information and analysis lead to situational understanding. Simply put, it is one thing to know what is happening and another thing entirely to know why something is happening, who is making it happen, and how to stop it. The Threats, Targets, and Operations Assessment (TTOA) was created to help develop this comprehensive understanding. Before the TTOA was launched in 2013, U.S. Border Patrol Sectors used a variety of analytical tools to assist in operational planning. In many places no systematic analysis tool was used at all. In most cases, U.S. Border Patrol Sectors conducted operations based on historic and current activity levels while using intelligence to show where and how they could interdict more illegal aliens and drugs, rather than how they could degrade or dismantle illicit networks through a targeted approach.

In addition to traditional patrol operations and the new technical capabilities, the U.S. Border Patrol, in close collaboration with Department of Homeland Security and with the support of interagency partners, developed the TTOA. The TTOA was developed to help Border Patrol personnel analyze threats, adversaries, and environmental elements that impact the border security mission in the operational environment. The TTOA Model includes a standard methodology for assessing most likely and most dangerous threats to public safety and the continuity of Border Patrol operations, and focuses on identifying friendly and adversary capabilities. The TTOA was designed to be completed by an integrated team of U.S. Border Patrol intelligence, operations, and planning personnel, with input and assistance from all relevant CBP components and interagency partners. The TTOA process provides a valuable tool for analyzing important elements of identified and potential threats against Border Patrol's ability to counter those threats. Assessment results feed directly into multiple planning products, to include: Intelligence Preparation of the Operational Environment (IPOE); Sector Operational Implementation Plans; and Corridor Campaign Plans. Additionally, TTOA results support Border Patrol's ability to monitor changes in adversary attributes and capabilities over time. This information assists Border Patrol and interagency partners in assessing the status and strength of adversary networks, and their impacts on border security.

Intelligence Preparation of the Operational Enviroment

Once all information on specific elements of threats and countermeasures were gathered, organized, and assessed through the TTOA, Border Patrol personnel needed a way to contextualize that information in the unique physical, human, and security characteristics of their AORs. Again borrowing from the U.S. military, the Border Patrol addressed this need through the development of an Intelligence Preparation of the Operational Environment (IPOE), modeled after the DOD Joint IPOE.[7] The IPOE was designed to serve as a platform for describing, for a particular Border Patrol geographic area of responsibility, the following elements:

- The area of interest (geographical area of concern to the Border Patrol, including adversary territory);
- The area of influence (geographical area within which the Border Patrol is directly capable of influencing adversary operations); and
- The area of operations (geographical area within which the Border Patrol performs law enforcement operations).

The IPOE also included how the physical, human, and security elements of the environment impacted both adversary and Border Patrol operations, and the courses of action adversaries were likely to take in the future.

The Border Patrol Planning Process

"In preparing for battle, I have always found that plans are useless, but planning is indispensable."
Dwight D. Eisenhower

The Border Patrol Planning Process is the third tool provided to U.S. Border Patrol planners. As the U.S. Border Patrol worked through the TTOA and IPOE process that helped frame the environment along the border while identifying relevant friendly and adversary capabilities, the U.S. Border Patrol needed a problem solving process. In the past the U.S. Border Patrol exclusively used the SMEAC (Situation, Mission, Execution, Administration, and Command) format for operational planning. At the tactical level, the SMEAC process was a very simple way to execute a decided upon solution and identify the resources needed, but was it the right solution? Were there other ways of solving the problem?

Through the TTOA and IPOE the U.S. Border Patrol had the ability to understand the environment, the adversary, and ourselves better than ever. This understanding exposed the need for a standardized planning process that would serve as the foundation for doctrine that could be used throughout the U.S. Border Patrol. Equally important, the planning process needed to allow for a broader view of the border environment and the effects of the proposed actions. The Border Patrol needed to look no further than the Department of Defense's Joint Operations Planning Process and Military Decision Making Process.

The BP3 process relies heavily on Design Methodology used by the U.S. Army to apply critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solving them. The BP3 then combines the design concept and results from the TTOA and the IPOE in the mission analysis phase, into actionable operations through the creation of an operational implementation plan. The BP3 is the overarching process that allows planners to turn conceptual planning into executable operations.

The Tactical Shift

While the shift from a resource to a risk based strategy brought the development and refinement of new processes and deployment methods, tactical changes had to be made as well. The risk based strategy changed the mentality of employees across the agency by emphasizing the big picture view and the key role each and every U.S. Border Patrol agent plays in increasing security along the U.S. border. Today it is much more than simply arresting a group of 40 illegal aliens only to see the guide run away – today the importance of apprehending the guides and key criminals are paramount as they possess the knowledge and skills that allow the TCOs to operate. Specialized evidence teams are deployed to bail outs (when cars are abandoned and occupants flee during traffic stops) to collect critical evidence that link principle smugglers to their supporting networks. Electronic analysis of cell phones and electronic media is conducted that uncover hidden networks and help hone the targeting process. Prosecutorial components are incorporated as Assistant U.S. Attorneys work hand in hand with targeting teams during the investigation and targeting process. For the front line Border Patrol agent it is a shift from simply conducting an inventory of the enemy by way of drugs seized and illegal aliens apprehended – to a measure of how many guides were apprehended, how much information and intelligence was gained, and how these key criminals are connected to the smuggling cells operating along the U.S. border. A risk-based strategy has challenged Border Patrol agents to evolve from border guards who simply watch over an area only to have their actions dictated by TCO operations, to border police, responsible for the national sovereignty and the detection and prevention of crime through an increased use of intelligence, planning, integration, and prosecution; a challenge they have risen to throughout the ranks.

A risk-based strategy is not without limitations. Gaps will always exist in risk assessments, and plans, as Carl von Clausewitz wrote, never survive first contact with the enemy. There are no guarantees. For strategic leaders charged with seeing beyond the horizon and directing the U.S. Border Patrol, the shift to a risk-based strategy offered the ability to focus efforts and resources and provide parity with the enemy. A risk based strategy is not a short term tactic, nor is it a silver bullet for border security - it is a progression, a progression that realizes border security doesn't start and stop on the border, nor is it defined by interdictions alone. If we learn anything from the black swan theory, it is that the next evolution in border security can be but one tragedy or observation away.

End Notes

1 Taleb, Nassim Nicholas. The Black Swan: The Impact of the Highly Improbable. New York: Random House, 2007.

2 The CARVER matrix was originally developed by the United States Special Operations Forces during the Vietnam War to rank and prioritize targets with the limited offensive resources available.

3 The Unified Command is a Collective of Intelligence, Investigative, and Interdiction Agencies that collaborate vote on specific targets to direct the main force of each agencies respective authorities and resources against the mutually agreed upon targets.

4 Diagram was developed and presented to Border Patrol Agents by then Tucson Chief Patrol Agent Richard Barlow in 2011 to describe the a typical criminal business model; Tucson , Arizona.

5 In 2010 the U.S. Border Patrol Spent 3.5 billion on Security between the ports of entry and had less than 3% of the U.S. Border under “control” as defined in the 2004-2008 U.S. Border Patrol National Strategy.

6 This practice was uncovered in Laredo North where the Patrol Agent in Charge Carl Landrum illustrates the business practices of TCOs operating in Laredo who mark illegal aliens with numbers to identify them as individuals who have paid the one time fee.

7 U.S. Department of Defense. Joint Publication 2-01.3: Joint Intelligence Preparation of the Operational Environment. June 2009.


U.S.
BORDER
PATROL

Measuring Security

Measuring Security

"Risk Indicators Along the U.S. Border"

This is the third installment in a series of short articles written to provide clarity on how the U.S. Border Patrol measures security along our nation's international border.

Introduction

Since its inception in 1924, the U.S. Border Patrol has been charged with providing security to our country between the official ports of entry. Tactics have changed, strategies have evolved, and threats have emerged and dissipated, but the mission to stop illicit cross-border activity has remained. Whether tasked with detecting bootleg alcohol smugglers during the era of prohibition, guarding against the threat of aircraft hijackings during the 1960s, or helping to suppress riots in California, the U.S Border Patrol, time after time, has risen to the challenge. Throughout the Border Patrol's rich history leadership has been asked whether the border is secure, whether it is safe, or whether someone or something can get across the U.S. border without the Border Patrol knowing. Inevitably, citizens, politicians, and even some in the law enforcement community lay border security at the feet of the frontline U.S. Border Patrol agents deployed at the outermost edges of the Nation. Often, the U.S. Border Patrol is criticized for failing in its mission to secure America's border between the ports of entry, but what is success for the U.S. Border Patrol? Answers about security, safety, and the permeability of the border differ with one's perspective. The *2012–2016 Border Patrol Strategic Plan* emphasizes focused deployment against the highest risks along the Nation's border and defines success as the achievement of a low-risk border. Will the new strategy work? How do we know? How does the U.S. Border Patrol measure success? The *2012–2016 Border Patrol Strategic Plan* defines a secure border as one of low risk. The U.S. Border Patrol considers an area to be low risk when it has confidence in its situational awareness of the imminent and emergent threats to border security coupled with a confidence in U.S. Border Patrol and interagency capabilities to mitigate those threats. This is achieved through the use of analytical planning tools that help the U.S. Border Patrol define the environment and the operational capabilities of adversarial and friendly forces. But, how does the U.S. Border Patrol know it is succeeding in bringing a greater level of security and moving closer to a low-risk border? The answers are difficult to come by; traditionally, the U.S. Border Patrol only reported output metrics such as the number of illicit assets seized, pounds of drugs interdicted, and arrests made in a given year to illustrate success. Is the U.S. Border Patrol succeeding when apprehensions and drug seizures rise? Many would offer that it is. What happens when seizures and apprehensions decrease? Some say this defines success. Given the range of how these metrics could be interpreted, the U.S. Border Patrol needed a better way to define success and measure performance against it.

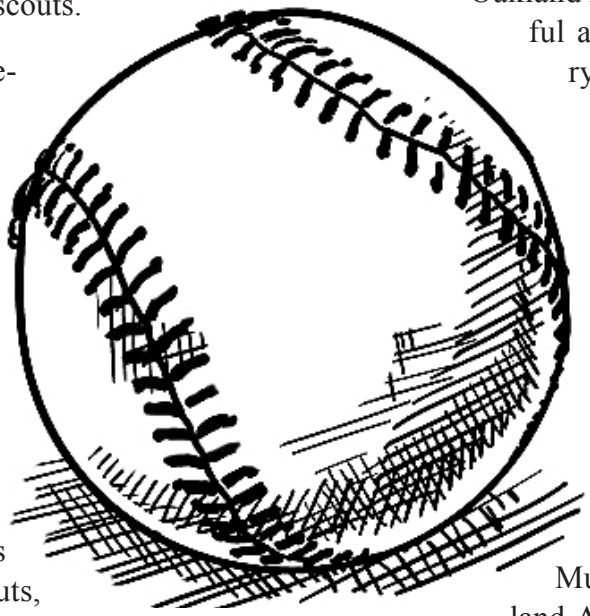
A defining moment for the U.S. Border Patrol came in 2010 when U.S. Border Patrol Chief Michael J. Fisher testified that the U.S. Border Patrol had spent $3.5 billion on border security and "controlled" less than three percent of the border.[1] Extrapolating from that statement, one might conclude it would take an additional $113 billion to bring the remaining 97 percent of the U.S. border under "control," as defined by previous strategies, more than doubling the total amount the Department of Homeland Security spent as a whole in 2010.[2] The U.S. Border Patrol had insufficient ways to account for and judge the effects of its efforts to bring a greater level of security to the U.S. border. In light of this, the U.S. Border Patrol began work on defining border security metrics which represented the reality of what was happening on our nation's border.

What Really Counts – A Study in Metrics

"Everything that can be counted doesn't necessarily count"

Albert Einstein

Winning in and of itself denotes an end state; the culmination of a series of actions in which an opponent is decisively and unequivocally defeated. Could the U.S. Border Patrol really win the battle for safety and security along the U.S. border? What does it mean to win? Consider professional sports. Professional baseball teams have staked their ability to win on new recruits and players that have five key abilities – the ability to run, throw, field, hit, and hit with power. These abilities are described as *talent*. The quasi-science of searching for and recruiting baseball talent is reserved for lifelong practitioners of the game – the team scouts.



One of the more famous baseball scouts in history is Billy Beane. Billy was a star high school baseball player in San Diego, California, who was identified as having great *talent*. Billy was drafted in the first round of the 1980 Major League Baseball draft by the New York Mets based on his perceived *talent*. However, he never became the world class athlete predicted by the scouts, and struggled most of his professional career. Scouts would later admit they never looked at Billy's statistics, they insisted he *looked like a good ball player with talent, which, at the time, were the only metrics that counted*.[3] Billy's baseball career took a turn in 1990 when he accepted a scouting position for the Oakland A's. In 1997, Billy became the team's General Manager, where he advanced his predecessor's work in Sabermetrics – the analysis of baseball metrics to measure activity.[4]

When Billy took over as the A's General Manager, baseball statistics had been used for decades to analyze individual player talent. However, Billy did not have the financial resources to staff his team with players who had obtained impressive individual statistics. So, rather than recruiting expensive players with individual *talent*, Billy focused on recruiting players based on their ability to contribute to the team's solitary goal and measure of success – wins. Since winning required scoring more runs than the opponent and scoring runs generally required batters to get on base, Billy focused on the number of times a potential recruit actually got on base.

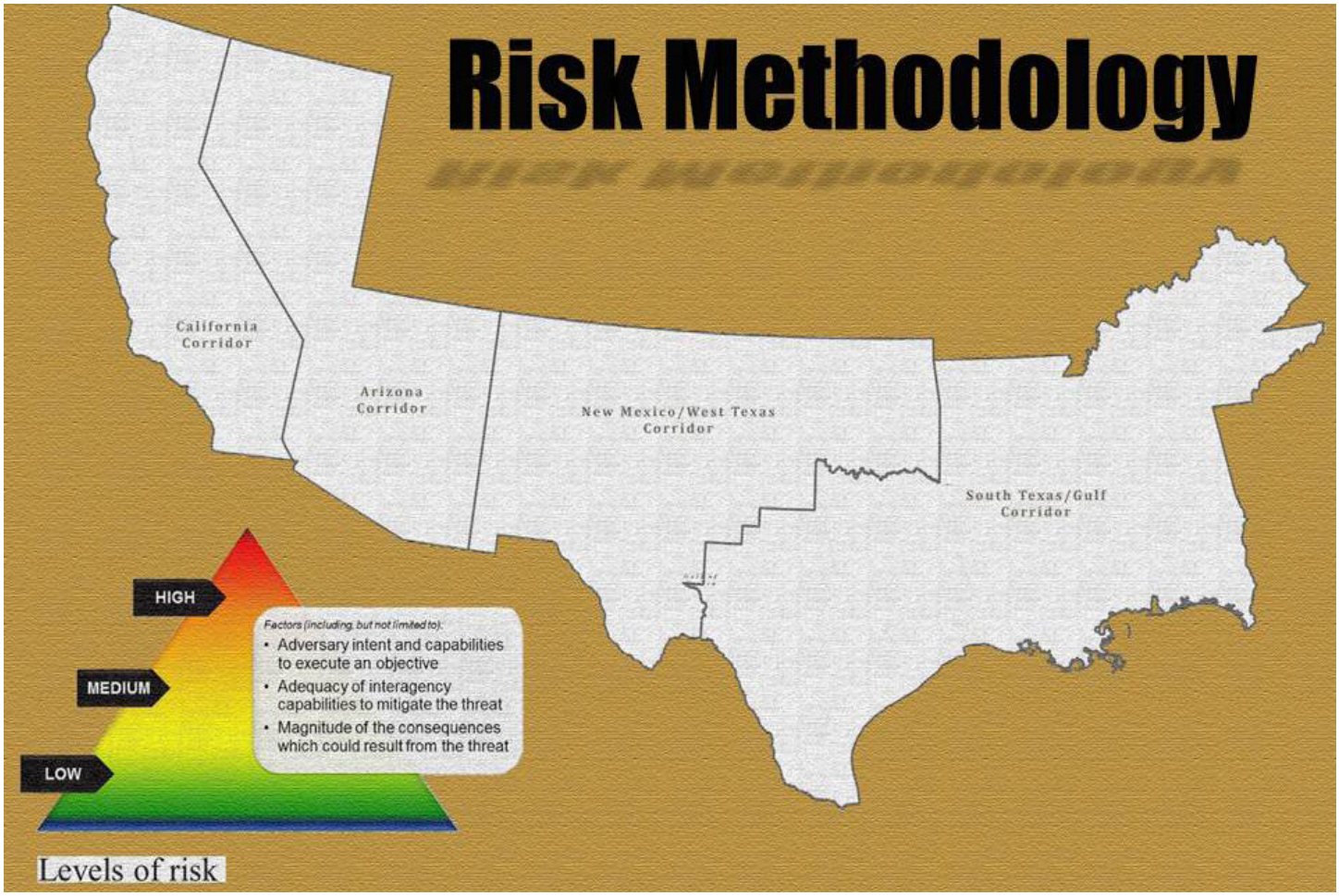
By using key metrics, Billy was able to turn the Oakland A's into one of the most successful and cost effective teams in history. Billy used on base percentage statistics and other metrics directly related to achieving the team's objectives, to inform and develop optimal game plans (e.g., batting lineups). In 2002, Billy's unconventional approach led his team to the first 20 game winning streak in American League history.

Much like Billy Beane and the Oakland A's, the U.S. Border Patrol had to re-think how they would measure progress toward defined objectives and goals. The U.S. Border Patrol's goal is to create a secure border, where there is a low risk to national security and public safety from illicit trans-border activity between the ports of entry. Low risk can only be achieved when you fully understand the capabilities of both you and your adversary in a defined environment. We do not conduct border security based solely on gut feelings, intuitions, or perceptions alone. Rather, a risk-based approach uses indicators and key metrics *related to specific objectives* to gauge the direction we are moving on a risk continuum and measure progress towards a strategic end - a low risk - secure border.

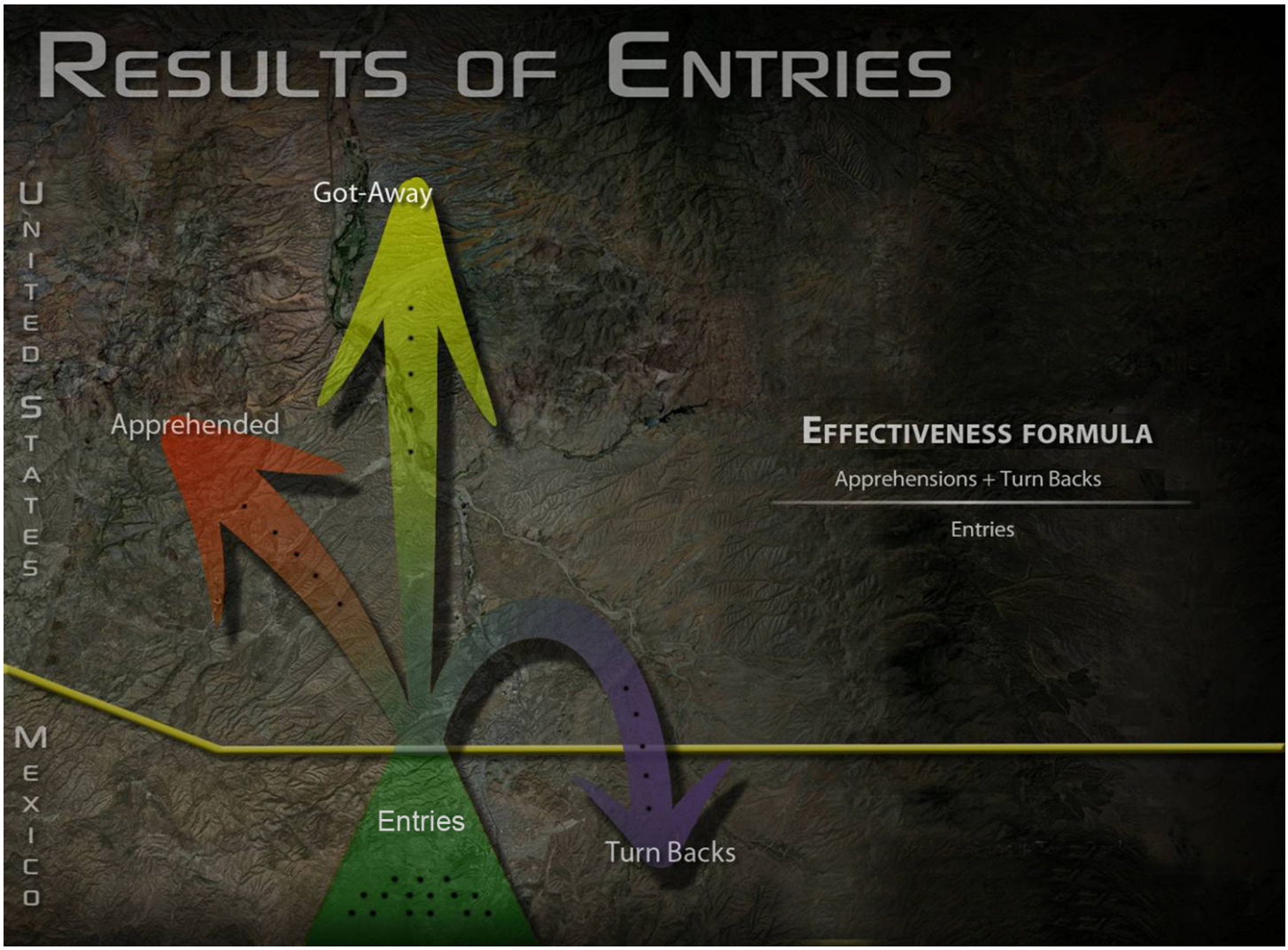
Photograph of Border Patrol agent performing linewatch duties in Arizona.

Measuring the Security Level in a Risk-Based Environment

The primary goal of the *2012–2016 U.S. Border Patrol Strategic Plan* is to position the U.S. Border Patrol to effectively secure the Nation's borders against all threats through a risk-based methodology. This goal is difficult to measure and unattainable if the Border Patrol doesn't first know what is actually coming across the border. This need for enhanced situational awareness and understanding was the first challenge the U.S. Border Patrol faced when developing metrics to identify its progress toward border security. In addition to enhancing interagency information and intelligence sharing, the U.S Border Patrol has taken significant steps forward in the deployment of agents and technological assets which, when at full operational capacity, support the Border Patrol's objective of achieving and maintaining situational awareness along the entire U.S. border. Among the assets employed are intelligence estimates used to identify the capabilities of Transnational Criminal Organizations (TCOs) and their possible links to terrorism, particularly the use of well-established criminal networks that could facilitate the movement of terrorists and their resources. Intelligence estimates are incorporated into environmental assessments, including geospatial intelligence, to identify likely areas of exploitation along the U.S. border. This holistic view of the border environment enhances situational awareness, which is the foundation for measuring border security. Taking advantage of increased situational awareness brought about by technological advances, intelligence estimates, and pertinent lessons from history, the U.S. Border Patrol developed key metrics which serve as risk indicators for measuring security along our nation's border. The metrics are used to develop a layered analysis to determine the level of risk in a given area. These metrics are not goals, but tools that asses progress towards the goal of a low risk – secure border.



U.S. Border Patrol Corridor Map.



"If you can't measure it, you can't improve it"
Peter Drucker

Border Performance Metrics

Effectiveness Rate

For years the United States Government was criticized for reporting arrests while never reporting the number of illegal aliens known to have evaded interdiction. A simple formula is used to measure how effective the Border Patrol is in apprehending known illicit cross border activity in areas characterized as high activity.[5] In the formula, a subject who crossed the border illegally is classified in one of three categories;

1. Apprehension – Subject who, after making an illegal entry, was taken into custody;
2. Turn back – Subject who, after making an illegal entry, returned to the country from which they entered; or
3. Gotaway – Subject who, after making an illegal entry was neither turned back nor apprehended.

The effectiveness formula is:

$$\frac{\text{Turn backs + Apprehensions}}{\text{Entries}}$$[6]

The inputs for the formula rely on: 1) Technology; 2) The expertise and verification by frontline U.S. Border Patrol agents. Technology used along the border consists of a layered web of technological tools to identify, verify, and track illegal cross border activity. These technological assets consist of unattended ground sensors that alert agents of cross border traffic and estimate the size of the group illegally crossing the border; in some instances, magnetic sensors are used to detect motorized vehicle incursions. Hidden cameras and photographic equipment are also used to detect, verify, and track illegal cross border activity. Some of this equipment is operated by Border Patrol agents in command centers near the border, yet other equipment is hidden in remote areas and checked frequently by specialized teams. Infrared and thermal imaging cameras mounted on vehicles and mobile towers are also used to locate and apprehend smugglers crossing the border. Often it is these cameras that are used to guide agents to the location of the smugglers to make the arrest. Aerial assets, both fixed and rotary wing are outfitted with Electro-Optical Infrared (EO/IR) imaging equipment to help identify and track cross border traffic. In parts of Arizona and South Texas, oversized balloons with camera equipment called aerostats are used to cover large areas and provide real time intelligence on cross border activity. While the technology outlined here is not all-inclusive, its use in combination with vehicular and foot patrols is essential to ensure an accurate accounting of illegal cross border activity. The effectiveness rate is used in areas considered to be high activity, where the *deployment density* (a sufficient number of active uniformed agents coupled with detection and monitoring equipment) is essential to maintaining a rapid response to cross border incursions. In other areas deemed as low activity, technology is used to closely monitor cross border incursions which trigger a response by law enforcement agents.

Map depicting Deployment Density and Geospatial Intelligence along the Southwest Border.

Daily Average Apprehensions

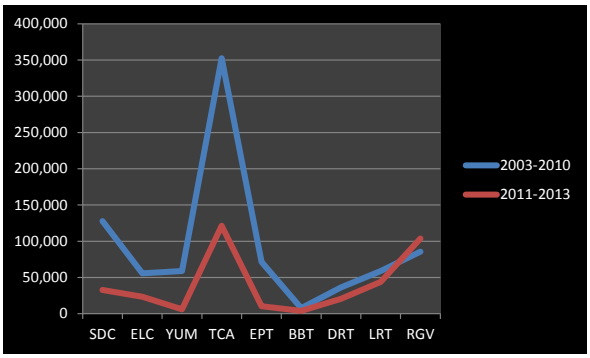
The daily average apprehension rate is a general metric used to identify smuggling trends and monitor shifts in TCO operations. To gauge the effectiveness of operations over time, the U.S. Border Patrol tracks the average daily apprehensions in each corridor. The U.S Border Patrol has nine corridors made up of 20 Sectors encompassing the continental United States and Puerto Rico. The Southwest Border has four of these corridors; California, Arizona, New Mexico/West Texas, and South Texas. Apprehensions are the result of human smuggling; and where there is smuggling, there is an illicit business. It is this business, the driver of criminal activity, which the U.S. Border Patrol and our interagency partners seek to target and eliminate. By tracking the daily apprehension rate we are able to generally identify focus areas and develop interagency operations to mitigate the risks they present.

Southwest Border U.S. Border Patrol Apprehensions

Average Yearly Apprehensions

Sector	2003-2010	2011-2013
SDC	127,658	32,801
ELC	55,835	23,471
YUM	59,013	6,146
TCA	352,500	121,408
EPT	71,397	10,392
BBT	7,685	3,895
DRT	36,317	20,458
LRT	58,955	43,891
RGV	85,634	103,819

Average Yearly Apprehensions

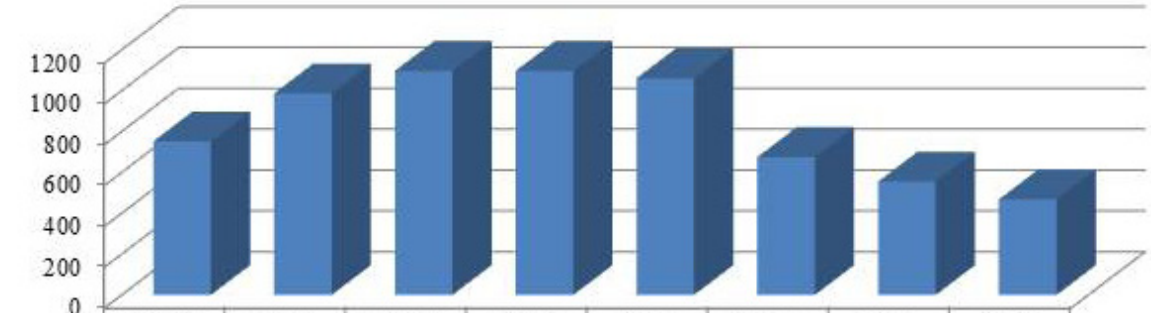


SDC – San Diego / ELC – El Centro / YUM – Yuma / TCA – Tucson / EPT – El Paso / BBT – Big Bend / DRT – Del Rio / LRT – Laredo / RGV – Rio Grande Valley

Assaults on Agents

Assaults on agents and the rate at which they occur is an indicator that provides insight into operations that affect security of border community residents. Typically, assaults on agents are a violent response to frustration on the part of Transnational Criminal Organizations operating in the area. When effective interdiction and counter network operations are undertaken that financially impact illicit business revenue, increased violence may be an indication that law enforcement is having a desired effect in reducing the TCO's ability to operate. The Effectiveness Rate, Daily Apprehension Rate, and Assaults on agents are general metrics that indicate how well the U.S. Border Patrol is performing against known illicit cross border activity. However, these alone would not indicate a level of security along the U.S. border. To increase accuracy in measuring risk along the border, the U.S. Border Patrol uses several post arrest metrics to track subtle changes in the border environment. These metrics are a result of technological advances that allow for accurate biometric data capture.

Assaults on Border Patrol Agents



	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Assaults	752	987	1,097	1,097	1,061	675	555	468

Biometric Enhanced Metrics

Recidivism Rate

The Recidivism Rate is the annual percentage of subjects who were apprehended more than one time during the specified time period. Recidivism data helps identify whether delivered consequences effectively deter future attempts to illegally enter the U.S. and reveals specific changes in the environment when overlaid with operational data. In many of the busiest locations along the southwest border, it was not uncommon to apprehend the same individual two or three times in a single shift. In fiscal year 2000, the U.S. Border Patrol apprehended 1.6 million individuals, but had no efficient way of verifying how many were first time entrants and how many were recidivists. It wasn't until 2005, when technological advances in biometric data collection allowed the U.S. Border Patrol to accurately report who had been arrested and how many times. Today, when a subject is apprehended by the U.S. Border Patrol, biometric data is captured that includes all ten fingerprints. During this process, the subject is given a unique Fingerprint Identification Number (FIN) which never changes and is tied to their biometric data. This biometric data is then cross checked against a multitude of state, local, and federal agency databases to uncover past criminal activity and warrants of arrest. The Border Patrol reasoned that if the percentage of recidivists declined as compared to total apprehensions then law enforcement operations were having the desired impact of reducing illegal activity and increasing security along the border. In 2007, the U.S. Border Patrol posted a recidivism rate of 29 percent. In 2013 the rate dropped to 16 percent, due in large part to the consistent application of the Consequence Delivery System designed to apply the most effective consequences on a case by case basis.[7] Fiscal years 2012 and 2013 both yielded increases in apprehensions from previous years, yet recidivism continued to decrease. Fewer and fewer subjects who receive consequences for illegal entry are attempting to re-enter.

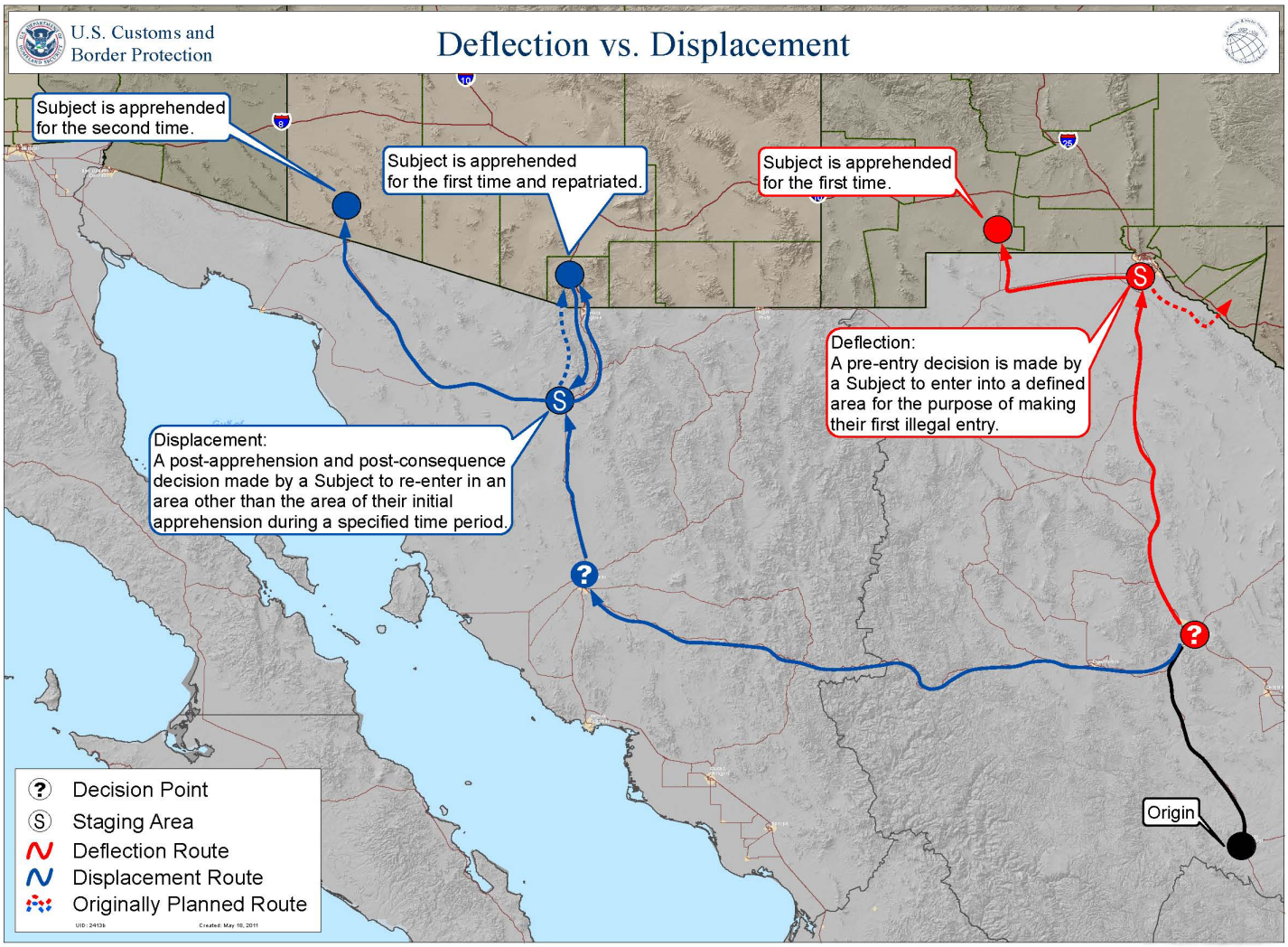
Average Apprehension per Recidivist

In addition to the total number of recidivists, the average number of times an individual is apprehended subsequent to their first apprehension is closely monitored. The U.S. Border Patrol again reasoned that if the average number of recidivist apprehensions decreases over time, then applied consequences and law enforcement operations are having the desired effect. A decrease in repeat offences shows a reluctance of individuals to cross a second time and chance further consequences. This ultimately decreases cross border illicit traffic which is a key indicator of security levels along the U.S. border. In 2008 the average apprehension per recidivist along the southwest border was 2.74 – in 2013 that average fell to 2.41, a favorable trend.

Terrorist Screening Database Matches

Tracking the convergence of terrorist and illicit criminal networks is the foremost priority for the U.S. Border Patrol, Customs and Border Protection and, to a greater extent, the Department of Homeland Security. To do this, subjects arrested crossing the U.S. Border are queried through what is known as the Terrorist Screening Database (TSDB). This database uses biometric and biographic information to cross check arrested subjects with known or suspected terrorist ties. The number of arrested subjects confirmed to be in the TSDB during the screening process is tracked to help categorize the risk present in a geographic area along the U.S. border; any significant increase triggers an enhanced intelligence and operational response. Over the past several years the accuracy and effectiveness of screening databases has increased through the use of advancing technology that captures biometric data with increasing speed and accuracy. Some of the biometric and biographic data is captured and cataloged through the Integrated Automated Fingerprint Identification System (IAFIS) maintained by the Federal Bureau of Investigation that cross checks for criminal histories, wants and warrants, and affiliation with known or suspected terrorists. This IAFIS database is also cross-checked with Department of Defense databases that capture biometric and biographical data from across the world. With each arrest and screening, more and more of the illicit network is mapped and analyzed against intelligence sources, that is then shared with other agencies to leverage the entirety of the law enforcement community against priority threats.

Border Patrol agent capturing subject's fingerprints during processing.



Displacement & Deflection

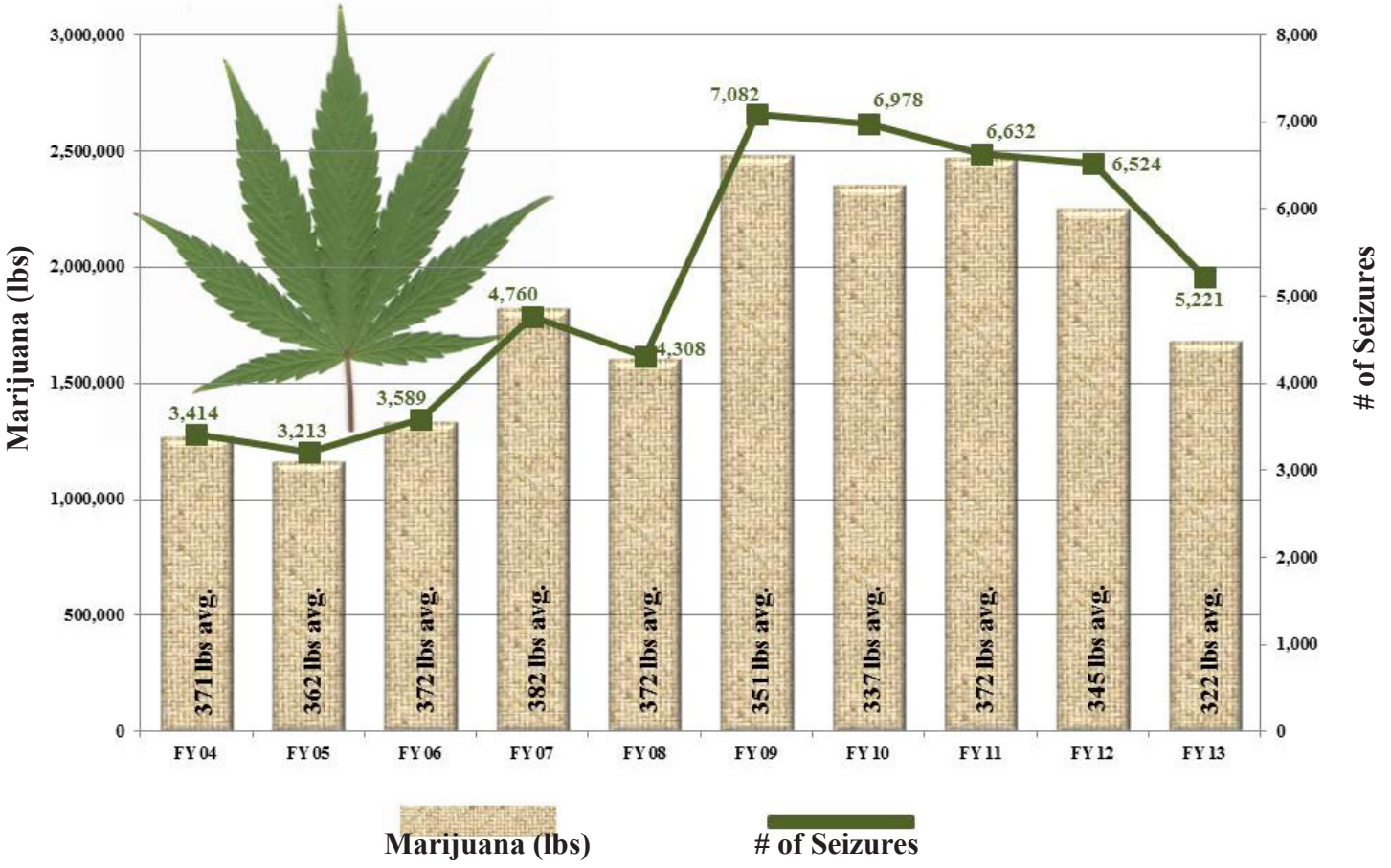
Displacement is the measured shift in illicit activity levels from one area of the border to another. Displacement is a key trend that is used to indicate the point at which law enforcement operations become effective enough to cause at shift in illicit activity by smugglers to sustain profit margins. If 5,000 subjects apprehended in California attempt a re-entry through South Texas, the U.S. Border Patrol wants to know the driving cause behind the shift in entry points. Through the use of biometric data, the displaced subjects can be targeted by intelligence agents to uncover changing illicit operations. Often post arrest intelligence interviews with displaced subjects reveal the creation of new illicit alliances, which aids in the discovery of budding illicit networks and leaders that can be targeted for arrest and prosecution. Displacement data is analyzed against law enforcement operations to indicate the effectiveness of operations over time in a given area.

Deflection is the ratio of first time apprehensions to total apprehensions in a given area. This metric facilitates pro-active, long-term planning and resource deployment. Post-arrest interviews often reveal that illegal aliens themselves do not choose where they intend to cross the U.S. border illegally; the TCOs make this decision based on their established networks. In 2011 the U.S. Border Patrol tracked a consistent increase in the percentage of first-time apprehensions in the South Texas Corridor; at the same time, a decrease in first-time apprehensions in Arizona was reported. The increase in the percentage of first-time entrants at specific points along the U.S. border is an indicator that TCO networks are growing in the area and traffic patterns are shifting. First-time apprehension trends (deflection) are shared with partner law enforcement and government agencies to facilitate long-term planning and resourcing for those agencies that have a nexus to border security, particularly the U.S. Citizenship and Immigration Service and Immigrations and Customs Enforcement's Enforcement and Removal Operations.

Weight Per Seizure Average

In Fiscal Year 2013, the U.S. Border Patrol seized more than 2.43 million pounds of illicit drugs. This included thousands of individual seizures between the ports of entry and at interior checkpoints. Each drug seizure that reaches a pre-determined threshold (e.g. 50 lbs. for marijuana) is assigned a unique event number and the weight of the drug seizure is recorded.[8] The weight per seizure metric provides the average weight per seizure of all recorded marijuana seizure events that meet pre-determined thresholds. Field Commanders monitor changes in the weight-per-seizure metric to detect increases or decreases in the average size of illegal drug loads, which is an indicator that law enforcement operations may be affecting the behavior of the TCOs. The U.S. Border Patrol reasons that when TCOs are comfortable sending larger quantities of illegal drugs across the border in a single smuggling event, they do so because they perceive that interdiction is less likely. Conversely, when TCOs perceive that enforcement efforts are strong and there is a higher likelihood of interdiction, drug loads are decreased in size and more effort is expended to evade detection and interdiction to distribute the increased risk. In some instances, TCOs stop using established overland smuggling routes and instead turn to costlier methods such as ultra-light aircraft, tunnels, or the coastline where costly marine vessels are needed. This reduces illicit profits by increasing the time needed to move a given amount of illegal drugs; requiring increased resources and expertise at a higher risk of interdiction.

These metrics allow the U.S. Border Patrol to measure the effects of operations and programs. Often these changes are subtle, but they are the keys to understanding the outcomes of U.S. Border Patrol operations under a risk-based strategy. The hard numbers presented by apprehensions and seizures are important, but when viewed holistically, they are simply products of a much larger illicit network. The illicit network battled daily by U.S. Border Patrol agents and our law enforcement partners on the U.S. border can be illustrated through the conveyor belt theory. Law enforcement agencies can line resources up at the border and train agents and the enforcement community to catch the boxes that come off the conveyor



belt, or we can work on shutting the conveyor belt down in such a way that diminishes the TCOs' ability to use it productively.[9] Many would argue that if the U.S. Border Patrol could just line up enough agents to catch every box coming off the conveyor belt, the battle would be won. However, in reality little would have been done to stop TCOs from simply shifting the conveyor belt to a new area or moving the conveyor belt further underground – literally; from 2008-2012 the U.S. law enforcement agents discovered and destroyed 90 tunnels running under our international border.[10] The U.S. Border Patrol and the broader law enforcement community know, in no uncertain terms, that until they attack the critical means and ways that perpetuate the movement of illicit goods, they will continue to apply resources to symptoms of a much larger problem.

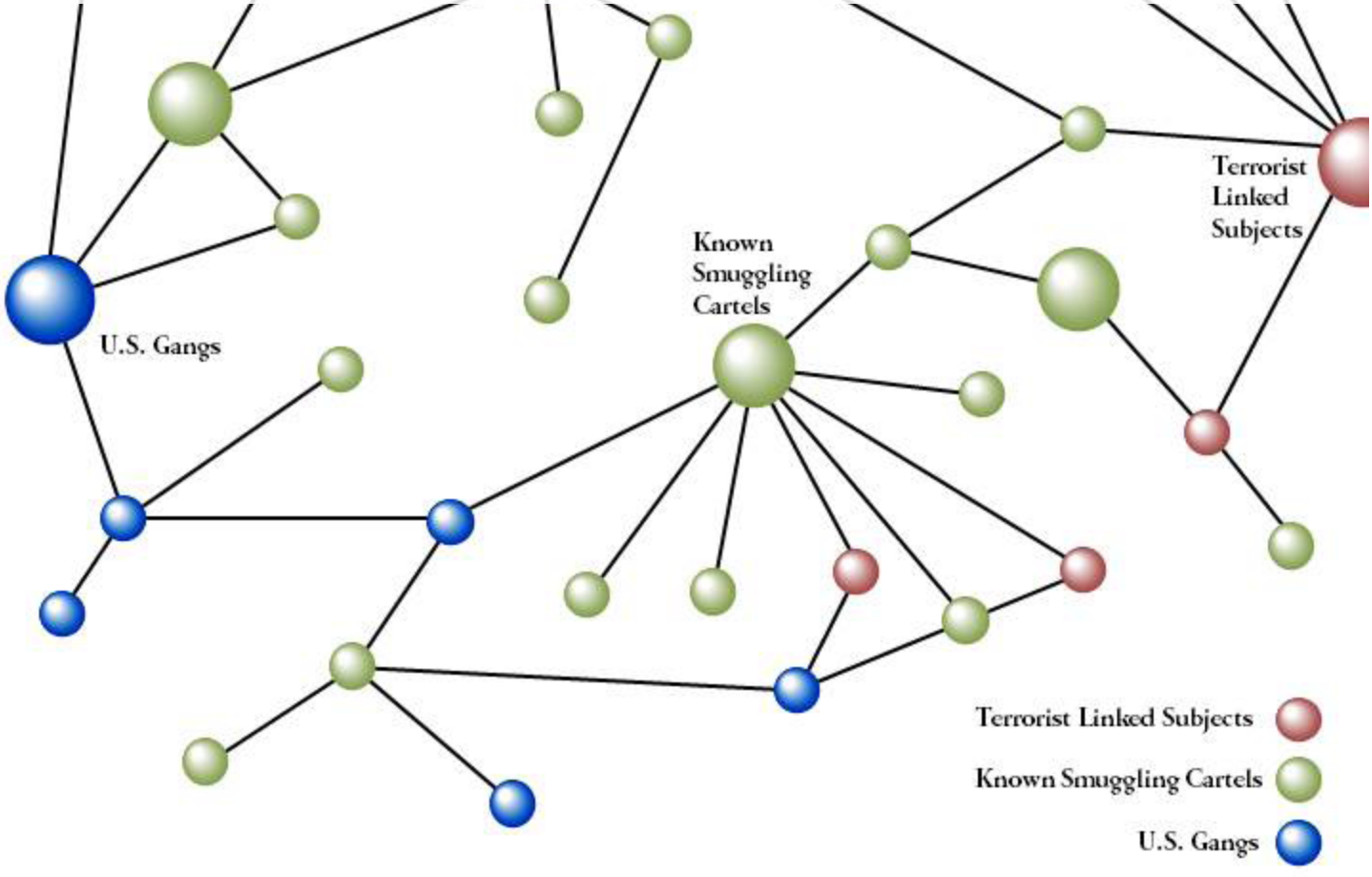
Stanley McChrystal, Retired Army General and former Commander of the Joint Special Operations Command, illustrated the necessity of attacking enemy networks when he sought solutions to the continual flow of insurgents into Iraq; particularly the foreign suicide bombers used with increasing frequency in 2006-2008. Through a systematic, intelligence-driven campaign, the American forces in Iraq discovered well-established smuggling routes that supplied suicide bombers from Syria to Iraq by way of the Euphrates River for attacks throughout the country.[11] American forces in Iraq came to the realization that no matter how many insurgents they arrested or killed, the continual resupply was inevitable so long as the illicit networks that supplied them were operational. They had to change the way they conducted the war and focus on changing the environment on the ground to succeed. For General McChrystal and his team, that meant focusing on the smuggling networks that steadily brought insurgents to Iraq from Syria. To further illustrate the importance of a holistic, counter-network approach, consider the revelations of Task Force 714 – a small group of special operations forces organized to conduct quick, rapid assaults on targets. While combating the networks that smuggled suicide bombers into Iraq, Task Force 714 discovered the terrorist cells seeking to perpetuate violence in Iraq did not establish new networks to facilitate travel of suicide operatives; they used existing criminal smuggling networks established long before the war began.

When McChrystal was asked how he knew the new strategy was working, he highlighted the reduction in suicide bombings in Iraq as a positive trend, but stopped short of calling that the measure of success for the strategy. Measuring success definitively, McChrystal said, was ultimately impossible. One needed to take the totality of the trends and continually reassess to evaluate what was changing on the ground. "There is no one metric or action that will measure if what you did worked – it is a trend; if things are trending in your direction then it is working."[12] The problem many face in deriving solutions for the complex problem of illicit counter-network operations is the lack of systems thinking; once a solution has been implemented, the system has changed. Solutions, McChrystal said, are temporal: "the very moment you act, is the moment the game has changed."[13]

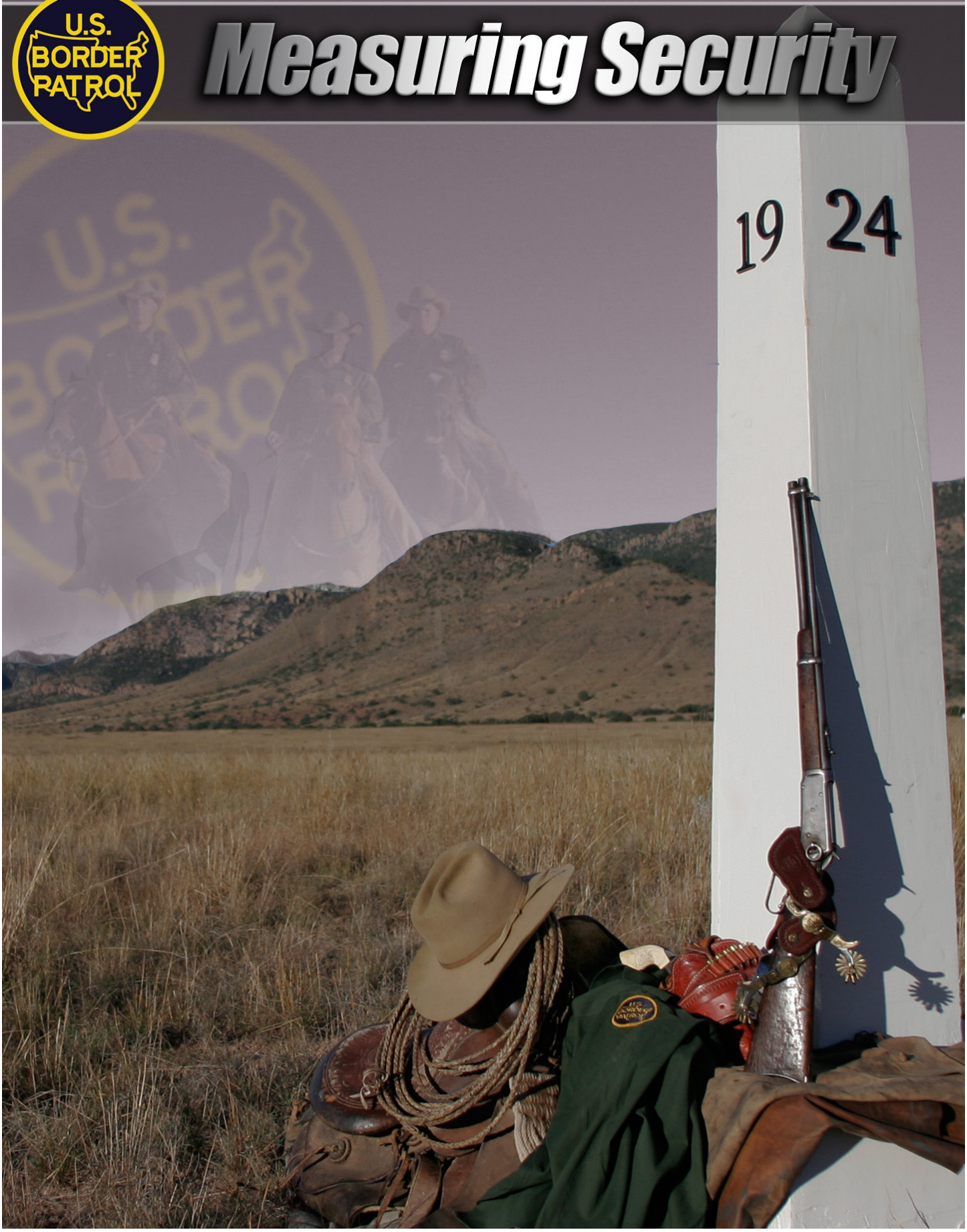
Conclusion

These metrics are simply a portion of the many metrics used by the U.S. Border Patrol that shape operations to mitigate variations in risk along our nation's border. No single indicator can be touted to show the border is secured or at low risk; this must be done holistically, through key trends and data sets that provide accurate estimates in a given area. This estimate is not a prediction of certainty; there is always an outlier. Arresting every person and seizing every illicit good that comes across the U.S. border illegally is important, and yes, will take resources, but stopping the networks that enable the transfer of these illicit goods must take precedent. There is mounting evidence that terrorist organizations intent on causing harm to the United States may use the same illicit networks that the U.S. Border Patrol and its fellow intelligence, investigative, and prosecutorial partners are battling today.

Through intelligence-gathering capabilities, the continual re-assessment of friendly and enemy capabilities, the regular evaluation of changing environmental factors, and the use of defined outcome metrics, the U.S. Border Patrol has the ability to determine the risk and security level along the border at any given time; however, risk and security levels are temporal. While these metrics have a predetermined direction on which way they must move to constitute success, it is not a one way scale; the border security mission does not end simply because the metrics are trending in a favorable direction. Currently, the metrics indicate the U.S. Border Patrol is succeeding at reducing risk and raising security levels in many areas along the U.S. border, but past performance does not guarantee future success. Border security is a continuous effort that requires an ever-vigilant guard whose watch will never end until those people intent on doing harm to our country are defeated both physically and morally. While there will be debate as to whether or not the U.S. Border Patrol is winning the battle along the U.S. Border, there is no debate concerning our ability to do it alone; we cannot. Success in reducing risk along the border will require an integrated effort to attack the many facets and unique challenges presented by a networked enemy.



Measuring Security



End Notes

1 U.S. Border Patrol Chief Michael J. Fisher. Testimony given before the House Subcommittee on Homeland Security; Jan 10, 2010.

2 DHS received an enacted budget of $55.1 Billion in 2010 http://www.dhs.gov/xlibrary/assets/budget_bib_fy2010.pdf .

3 Lewis, Michael. Moneyball: The Art of Winning an Unfair Game. New York: W.W. Norton, 2003.

4 Sabermetrics is the term for the empirical analysis of baseball, especially baseball statistics that measure in-game activity. The term is derived from the acronym SABR, which stands for the Society for American Baseball Research.

5 High Activity areas are characterized as areas where the presence of law enforcement agents coupled with technological assets are needed continually. Typically these are urban environment and high traffic areas where law enforcement has seconds to minutes to intercept cross border traffic once an intrusion has been detected.

6 Entries are defined as the sum of all Apprehensions, Turnbacks, and Gotaways for reporting purposes.

7 Tech: n.p., n.d. Independent Verification and Validation of Performance Measure Data. ENERGETICS, Aug. 2013. Apr. 2014.

8 Minimum weight thresholds are used to ensure reliable data as established by the El Paso Intelligence Center (EPIC).

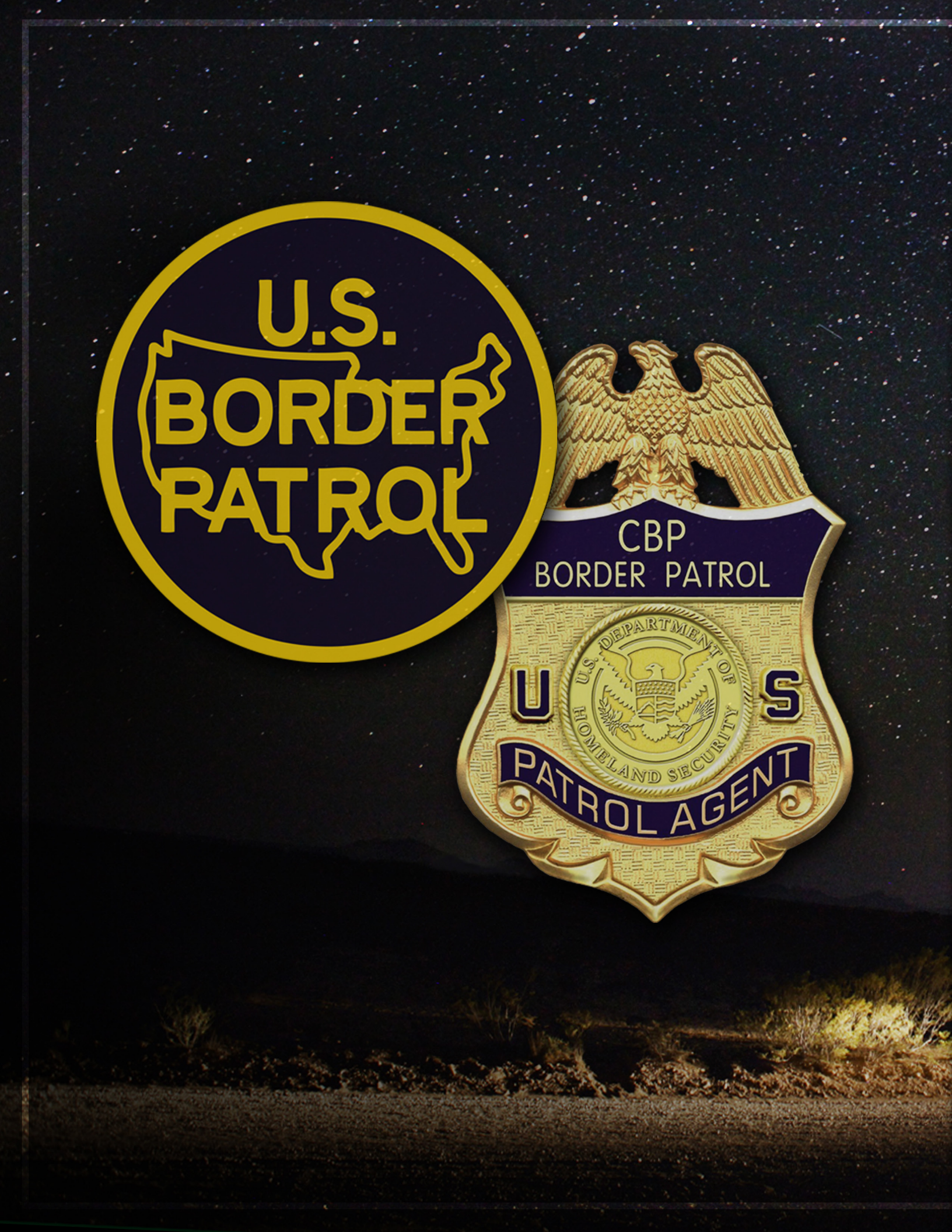
9 Telephonic Interview with Carl Landrum, Patrol Agent in Charge of the Laredo North Station, Laredo, TX. December 12, 2013.

10 Data retrieved from the U.S. Border Patrol Statistics and Data Integrity Unit - Office of Border Patrol - February 11, 2014.

11 McChrystal, Stanley A. My Share of the Task: A Memoir. New York: Portfolio/Penguin, 2013, Chapter 12.

12 “Ibid” Ch. 12.

13 McChrystal, Stanley A. Seminar given to Office of Border Patrol Executive Staff December 2013.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