

Author(s)	Reyna, Enrique J.; Castellanos, Dennis J.
Title	Exploiting weaknesses: an approach to counter cartel strategy
Publisher	Monterey, California. Naval Postgraduate School
Issue Date	2011-12
URL	http://hdl.handle.net/10945/10682

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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**EXPLOITING WEAKNESSES: AN APPROACH TO
COUNTER CARTEL STRATEGY**

by

Enrique J. Reyna
Dennis J. Castellanos

December 2011

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REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE December 2011	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE Exploiting Weaknesses: An Approach to Counter Cartel Strategy		5. FUNDING NUMBERS	
6. AUTHOR(S) Enrique J. Reyna and Dennis J. Castellanos		8. PERFORMING ORGANIZATION REPORT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number _____N/A_____.	
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited		12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) The thesis, "Exploiting Weaknesses: An Approach to Counter Cartel Strategy," provided an in-depth case study analysis of Los Zetas transnational criminal network to gain an understanding on its weaknesses and vulnerabilities. The thesis utilized social movement theory to illuminate its mobilizing structure and key essential factors that make Los Zetas vulnerable to disruption. In addition, the study identified Los Zetas' financial support structure to expose its insidious methods. Finally, the thesis utilized social network analysis and geographical information systems to gain an understanding of its organizational networks, deduce possible safe havens, and key terrain of Los Zetas. Ultimately, the employment of the aforementioned theories revealed essential vulnerabilities, which form the essence of a practical disruption policy recommendation against Los Zetas.			
14. SUBJECT TERMS Government of Mexico (GoM), Los Zetas, Criminal Organization, Social Network Analysis (SNA), Geospatial Information Systems (GIS), Centrality, Key Player, Social Movement Theory (SMT), Political Process Model, Resource Mobilization, Finance, Disruption			15. NUMBER OF PAGES 139
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

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**EXPLOITING WEAKNESSES: AN APPROACH
TO COUNTER CARTEL STRATEGY**

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MASTER OF SCIENCE IN DEFENSE ANALYSIS

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ABSTRACT

The thesis, “Exploiting Weaknesses: An Approach to Counter Cartel Strategy,” provided an in-depth case study analysis of Los Zetas transnational criminal network to gain an understanding on its weaknesses and vulnerabilities. The thesis utilized social movement theory to illuminate its mobilizing structure and key essential factors that make Los Zetas vulnerable to disruption. In addition, the study identified Los Zetas’ financial support structure to expose its insidious methods. Finally, the thesis utilized social network analysis and geographical information systems to gain an understanding of its organizational networks, deduce possible safe havens, and key terrain of Los Zetas. Ultimately, the employment of the aforementioned theories revealed essential vulnerabilities, which form the essence of a practical disruption policy recommendation against Los Zetas.

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LIST OF ACRONYMS AND ABBREVIATIONS

AML	Anti-Money Laundering
CDG	Gulf Cartel
EZLN	Zapatista Army of National Liberation
FBI	Federal Bureau of Investigation
GAFE	Grupo Aeromóvil de Fuerzas Especiales
GAFE	Mexican Special Forces
GIGN	National Gendarmerie Intervention Group
GIS	Geographical Information Systems
GoM	Government of Mexico
ICE	Immigration and Customs Enforcement
ISR	Intelligence Surveillance
MISO	Military Information Support Operations
MSB	Money Services Businesses
NAFTA	North American Free Trade Agreement
NHRC	National Human Rights Commission
OFAC	Office of Foreign Assets Control
PAN	National Action Party
PRI	Institutional Revolutionary Party
SMT	Social Movement Theory
SNA	Social Network Analysis

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ACKNOWLEDGMENTS

Enrique: First and foremost, I give all honor and glory to God who is my strong tower and inspiration in all things. I would like to thank my wife, for her enduring love throughout the past 22 years of military service. Your unwavering support and encouragement invokes my perseverance through difficult times. I would like to thank all the commissioned and noncommissioned officers alike, where truly, iron sharpens iron, and for the opportunity to question the conventional with boldness for the benefit of the Special Forces Regiment. Additionally, I would like to thank my advisors and professors at the Naval Postgraduate School for their insight, guidance, understanding, and patience. Finally, I would like to recognize all the students and staff of the Defense Analysis Common Operational Research Environment (CORE) Lab and appreciate all their efforts and collaboration. De Oppresso Liber!

Dennis: My highest gratitude is for my wife Toni, and our children, Diego, Daniel and Daveed, for they had to listen to much more than what is written here, and provided me shelter from the academic environment without which I could never have completed this project.

As with most endeavors, the elaboration of this thesis was truly a team effort and could not have been accomplished without the collaboration of several individuals. I hesitate to single out people here, for fear of not being inclusive enough. However, to ignore this opportunity to formally thank certain contributors would be worse. To Dr. Sean F. Everton, I thank you for your guidance, mentorship and unmatched willingness to work throughout this research. Special thanks to Professors Marcos Berger, and Kristen Tsolis, whose counsel and dedicated effort greatly enhanced this thesis. To Professor Doowan Lee, thank you for listening, providing insight and advice instrumental in shaping this project. Jennifer Duncan, thank you for taking the time to work with me.

The professionals in the 7th Special Forces Group (A) deserve more thanks and praise than I can give. Just a few of my mentors are mentioned here. LTC Ripley, thank you for your leadership. CW5s Frank and T.D. Doyle thank you for counsel and always having an open door. “Anything, Anytime, Anyplace.”

I. INTRODUCTION

Mexico is currently experiencing a significant degree of violence that seems uncontrollable by the Mexican government. This level of violence is attributed to drug cartels wishing to control key terrain that support the illicit drug flow into the United States. The benefits of the drug trade have enabled these criminal organizations to accumulate an immense amount of wealth, which they use to build a robust internal defense mechanism to support their efforts to expand operations, challenge the state, and eliminate the competition. Arguably, the government of Mexico (GoM) has lost the ability to enforce the rule of law and provide public safety for its citizens.¹ As a result, Mexico's levels of violence continue to rise.

The GoM has taken a direct approach to employ military means against drug cartels. The Mexican military and justice department have focused their resources to target cartel leadership in an effort to dismantle them. However, although the Mexican government has captured or killed a significant amount of cartel leaders, the result of this strategy has not reduced the level of violence. Furthermore, politicians, academics, and journalists criticize the current military strategy for being the problem and not the solution to the increased violence.²

Recent studies suggest the war of attrition or the current GoM's kingpin strategy employed will not reduce the level of violence that threatens the state.³ A common theme is that a more holistic approach is required to achieve the desired reduction in violence. Some analysts suggest that military capacity building, judicial reform, human rights education, and government institutional development can reduce the violence that presently exists in Mexico. However, absent in these studies are recommendations on how to defeat the most dangerous criminal organization in Mexico. Specifically, no

¹ John P. Sullivan and Adam Elkus, "Cartel v. Cartel: Mexico's Criminal Insurgency," *Small Wars Journal* (2009): 3, <http://www.smallwarsjournal.com/blog/2011/01/criminal-insurgencies-in-mexico>.

² "Mexico Politics: Drug War Drags On—Latin America," *Economist*, 2011, <http://latinamerica.economist.com/news/mexico-politics-drug-war-drags/182>.

³ "Mexico Finds Killing Drug Kingpins Can Add to Mayhem," *Associated Press*, 2010, <http://gazettenet.com/2010/11/12/mexico-finds-killing-drug-kingpins-can-add-mayhem>.

literature exists that provides a practical road map on how to defeat Los Zetas' criminal organization or how to improve the current strategy employed by the Mexican military against Los Zetas. This thesis research intends to fill this void.

This thesis argues that the persistent denial of essential resources (finances, key terrain, and organizational structure) to Los Zetas will decrease its operational capability and diminish its tactical functionality. To find an effective disruption strategy against Los Zetas, this research is focused on two questions.

1. What are the key organizational components of Los Zetas?
2. What are the vulnerabilities that undermine its operational capability?

This thesis research draws on four main bodies of literature. The first provides a historical perspective of Los Zetas from inception to its present state. It also explains Mexico's lack of security and inability to contain drug violence. Additionally, it provides a current picture of the criminal environment in Mexico, and the operational and tactical status of Los Zetas. This piece provides a closer look at some significant activities that shaped the drug war in Mexico. Ultimately, the bulk of this literature derives from journals, periodicals, and government reports injected into several analytical tools to show exploitable patterns of this insidious criminal organization.

The second body of literature is social movement theory (SMT); in particular, the political process model and its emphasis on political opportunities, organizational resources, and insurgent consciousness. Most of the information on SMT is derived from the work of Doug McAdam⁴ and Sean Everton.⁵ For the purpose of this research, the focus is on analyzing the organizational resources of Los Zetas.

The third body of literature focuses on social network analysis (SNA). The SNA concepts for the research are derived from the works of Sean Everton in the work entitled

⁴ Doug McAdam, *Political Process and the Development of Black Insurgency* (Chicago: University of Chicago Press, 1982).

⁵ Sean Everton, "Social Movement Theory," in *Gangs & Guerrillas: Ideas from Counterinsurgency and Counterterrorism*, ed. Michael Freeman and Hy Rothstein (Monterey, CA: Naval Postgraduate School, 2011).

*Tracking, Destabilizing and Disrupting Dark Networks Using Social Network Analysis.*⁶ Everton's work provides the SNA concepts that enable the visualization of Los Zetas' criminal network, as well as help formulate a disruption strategy against their organizational structure.

The fourth body of literature provides the foundation of the geospatial and temporal concepts. The thesis pulls from the works of Harm J. de Blij found in the book entitled, *Why Geography Matters; Three Challenges Facing America; Climate Change, the Rise of China, and Global Terrorism.*⁷ de Blij's work provides the basic geospatial concepts that help describe the effects of the operational environment through analysis of terrain. Furthermore, the geographical analysis of Los Zetas' key terrain will also draw from several academic projects including earlier analytical products of criminal organizations. This literature will provide the concepts of spatial, temporal and cluster analysis. Ultimately, the information derived from the literature provides a useful framework to examine the patterns of Los Zetas criminal activities.

A. PURPOSE AND SCOPE

The purpose for analyzing Los Zetas' vulnerabilities is to facilitate the foundation for a practical disruption strategy. An examination of this criminal organization through SMT provides a useful starting point. SMT establishes that three factors must be present for an insurgency or social movement to emerge: political opportunities, increased organizational resources, and the development of a consciousness. The subsequent argument holds that these factors contribute to the formation and success of criminal organizations, such as Los Zetas. More importantly, the authors contend that the absence of Los Zetas' organizational resources will create enough friction eventually to disrupt its operational capacity.

⁶ Sean F. Everton, *Tracking, Destabilizing, and Disrupting Dark Networks Using Social Network Analysis* (Monterey, CA: Naval Postgraduate School, 2009).

⁷ Harm J. de Blij, *Why Geography Matters; Three Challenges Facing America; Climate Change, the Rise of China, and Global Terrorism* (New York: Oxford Press, 2005).

B. THESIS METHODOLOGY AND ORGANIZATION

The first phase of this thesis provides an in-depth case study analysis of Los Zetas criminal organization through the lens of SMT and attempts to illuminate key essential factors that make them vulnerable to disruption. The research concentrates on identifying essential elements of the mobilizing structure of Los Zetas, which is one key factor of the SMT. The second phase examines Los Zetas' financial support structure to expose its methods. Next, this thesis employs geographical information systems (GIS) to explore operational hubs and key terrain of Los Zetas. Furthermore, SNA of Los Zetas is reviewed to examine its organizational structure. Finally, the last phase constitutes the development of a pragmatic disruption strategy against the financial practices, key terrain and network infrastructure of Los Zetas, which is based on the findings of the aforementioned disciplines. As such, the thesis proceeds as follows.

Chapter I presents an overview of the current violence campaign in Mexico. It briefly discusses the GoM's current counter cartel strategy results and highlights Los Zetas' significance within Mexico's criminal underworld. It sets forth the primary questions for the research and draws boundaries of the study. It concludes with a discussion of the methodology for the research and includes the organization for the thesis.

Chapter II analyzes Los Zetas in its historical context and highlights its prominent characteristics. It begins with the origin of Los Zetas by examining key political events that shifted the balance of power among dominant drug cartels. Next, it reviews the disruption of the former relationship between criminal organizations and the Mexican government. This chapter then explores the military heritage drawn from Mexican Special Forces (GAFE) deserters and its current affiliation to Guatemala's Kaibiles. It also studies the robust organizational structure by discussing aspects of its design and highlighting the brutal operational methodology that sets Los Zetas apart from other criminal entities. Finally, it concludes with contemporary operational events and provides a preliminary snapshot of Los Zetas.

Chapter III provides the conceptual framework of the study. This chapter explains in depth how Los Zetas can be viewed through the lens of SMT to explain its emergence, growth, and success. The main idea is to explain that ultimately Los Zetas requires resources (finances, key terrain, and personnel) to succeed and collapses without them.

Chapter IV discusses the financial aspects of Los Zetas. It illuminates the major sources used to generate funds to support its operations. This chapter also examines unconventional illicit financial practices of the group. It concludes with highlights of existing counter methods by both U.S. and Mexican law enforcement agencies to reduce illicit financial activities.

Chapter V uses GIS to identify key terrain that Los Zetas requires to operate. By conducting a retroactive examination of criminal incidents in Los Zetas' operational terrain, the research identifies operational patterns used to accomplish its goals. Lastly, this chapter identifies points of vulnerabilities in specific operational areas that contribute to the overall disruption strategy.

Chapter VI employs SNA tools (Palantir, UCINET, and Organizational risk analyzer (ORA)) to illuminate the organizational structure of Los Zetas. The intent is to understand the network and examine the operational ties and affiliations that Los Zetas needs to succeed. The focus is to identify key individuals who if removed will greatly incapacitate the operational effectiveness of the organization. This chapter discusses the value and applicability of using SNA to study criminal networks, such as Los Zetas.

Chapter VII offers concluding thoughts on the overall view of Los Zetas. It then makes practical recommendations to disrupt the organization based on the exploration of financial practices, geospatial analysis and findings in SNA. Finally, it concludes with other recommended areas of research.

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II. HISTORY AND BACKGROUND

A. INTRODUCTION

Americans' insatiable appetite for illegal drugs has long been viewed as a threat to national security. This view began in 1971 with former President Richard Nixon who took an essential step toward militarization by coining the term "war on drugs."⁸ As a result, for over four decades, the United States has aggressively countered the supply side of the drug market, which has yielded insignificant results. Today, both the United States and Mexico are still confronting an uncontrollable flow of illegal drugs that fuel the level of violence on both sides of the border. As drugs continue to flow north and money moves south, opportunistic drug cartels have evolved into private lethal armies. Ultimately, these violent syndicates create a significant threat to a country's internal security, national interests, and its citizens. In response to this increasing threat, President Calderón of Mexico has committed 50,000 troops to combat the various criminal organizations head on; nevertheless, drug cartels remain resilient and immune to governmental and competitors' counter efforts. In the end, the convergence of the current Mexican government counter cartel strategy and the relentless response of the drug cartels to remain in business, have yielded an estimated body count of 50,000 with seemingly no end to the violence in the near future.

Los Zetas has emerged as one of the most prominent, dangerous, and resilient cartels in Mexico. This criminal syndicate continues to adapt to a dynamic and violent environment successfully to achieve its end. Los Zetas' goal consists of generating financial capital through any means possible. The methods required to maximize Los Zetas' profits require a perpetual aggressive and hostile campaign to control the environment. Los Zetas achieves its goals by collecting illicit profits from the trafficking of drugs and humans, prostitution, theft, counterfeiting, kidnappings, and extortion.

⁸ Lucia Graves, "On 40th Anniversary of War on Drugs, Cops Decry Obama's Drug Policy," *Huffington Post*, August 15, 2011, http://www.huffingtonpost.com/2011/06/15/40-anniversary-war-on-drugs-cops-obama_n_877702.html.

Ultimately, Los Zetas successfully controls territory, expands its market reach, and generates sufficient revenue to continue its successful existence. The purpose of this chapter is to examine Los Zetas' origins and physical infrastructure to gain a deeper understanding of what factors separate Los Zetas from its competitors and what conditions facilitate its operational success.

B. ORIGIN

Critics of the war on drugs attribute the increased violence in Mexico to the current counter cartel strategy, which originated 11 years ago with the administration of Vicente Fox and has intensified with the administration of Felipe Calderón.⁹ Prior to Fox's presidency, a mutual agreement between drug cartels and the government existed that provided sanctuary and protection to major drug cartels in exchange for profit. Once this criminal relationship was disrupted, 'lex talionis' swayed drug cartels to create their own private armies for protection, which in turn, has given rise to the most brutal, resilient, and successful criminal entity, Los Zetas.¹⁰

Initially, Los Zetas was comprised of Mexican Special Forces deserters who joined the military arm of the Gulf Cartel (CDG) to provide route security, eliminate the competition, provide personal protection, and collect debts. Osiel Cárdenas Guillén, the now-jailed leader of the CDG, is responsible for recruiting Los Zetas' current leadership. He was able to lure members of the Grupo Aeromóvil de Fuerzas Especiales (GAFE) with lucrative salaries and the opportunity to increase profits in the future. In return, Cardenas Guillén was able to advance his criminal organization with his newly created military arm, Los Zetas.

A deeper exploration of the GAFE military unit provides some insight into the tactical capabilities that shaped the original Zetas, and explains the unparalleled advantage that this criminal syndicate has over other criminal competitors. GAFE is a special unit of the Special Forces branch, which was initially created in 1986 as the

⁹ Max G. Manwaring, "A "New" Dynamic in the Western Hemisphere Security Environment: The Mexican Zetas and Other Private Armies," *Strategic Studies Institute* (2009): 17.

¹⁰ *Ibid.*, 17–18.

“Fuerza de Intervención Rápida” (Rapid Intervention Force), to provide security for the Soccer World Cup in Mexico City. Subsequently, France's National Gendarmerie Intervention Group (GIGN) trained the group in special weapons and counter-terrorism tactics.¹¹ In 1998, GAFE saw action fighting the Zapatista Army of National Liberation (EZLN) guerrillas in Chiapas.¹² At some point during this time, the 7th Special Forces Group based at Fort Bragg, North Carolina, trained some members of the elite GAFE. “They were given map reading courses, communications, standard Special Forces training, light to heavy weapons, machine guns and automatic weapons,” said Craig Deare, the former Special Forces commander, who is now a professor at the U.S. National Defense University. “I had some visibility on what was happening, because this [issue] was related to things I was doing in the Pentagon in the 1990s.”¹³ Many consider GAFE units the Mexican equivalent to the United States Army Special Forces (Green Berets).

Several GAFE members, following completion of the U.S. training, deserted the Mexican military and were later led by former lieutenant Arturo Guzmán Decena to create the military action arm of the Gulf Cartel. Their desertion, followed by the transition to Los Zetas, first came to the attention of Mexico's Attorney General's office in 1999. More defections occurred in the following years; between the years 2000 and 2005, over 1,300 more of these elite soldiers deserted. The GAFE desertion rate of 25% towers over any other branch of the Mexican military.¹⁴ As a result, Gerardo Clemente Ricardo Vega García, then secretary of the national defense, ordered changes in the GAFE organizational structure to unify the control of the elite military unit and prevent future desertions. In any case, GAFE still managed to survive after the desertion

¹¹ Ejército de México, http://www.fuerzasmilitares.org/phase_two/index.php?topic=1316.0;wap2.

¹² México Armado, November 14, 2007, <http://www.mexicoarmado.com/temas-generales-y-humor/90881-grupos-aeromoviles-de-fuerzas-especiales-gafes.html>.

¹³ Chris Arsenault, “U.S.-Trained Cartel Terrorises Mexico,” *Infowars Ireland*, October 22, 2010, <http://info-wars.org/2010/10/22/us-trained-cartel-terrorises-mexico/>.

¹⁴ Todd Miller, “Mexico: Corporate Hit Men Find New Ways to Turn a Profit,” *North American Congress on Latin America*, January 20, 2010, <https://nacla.org/node/6369>.

experienced within its ranks. To its credit, some of the significant accomplishments post-desertion include the capture of several notorious drug kingpins, such as Benjamin Arellano Felix and Osiel Cárdenas Guillén from the CDG.

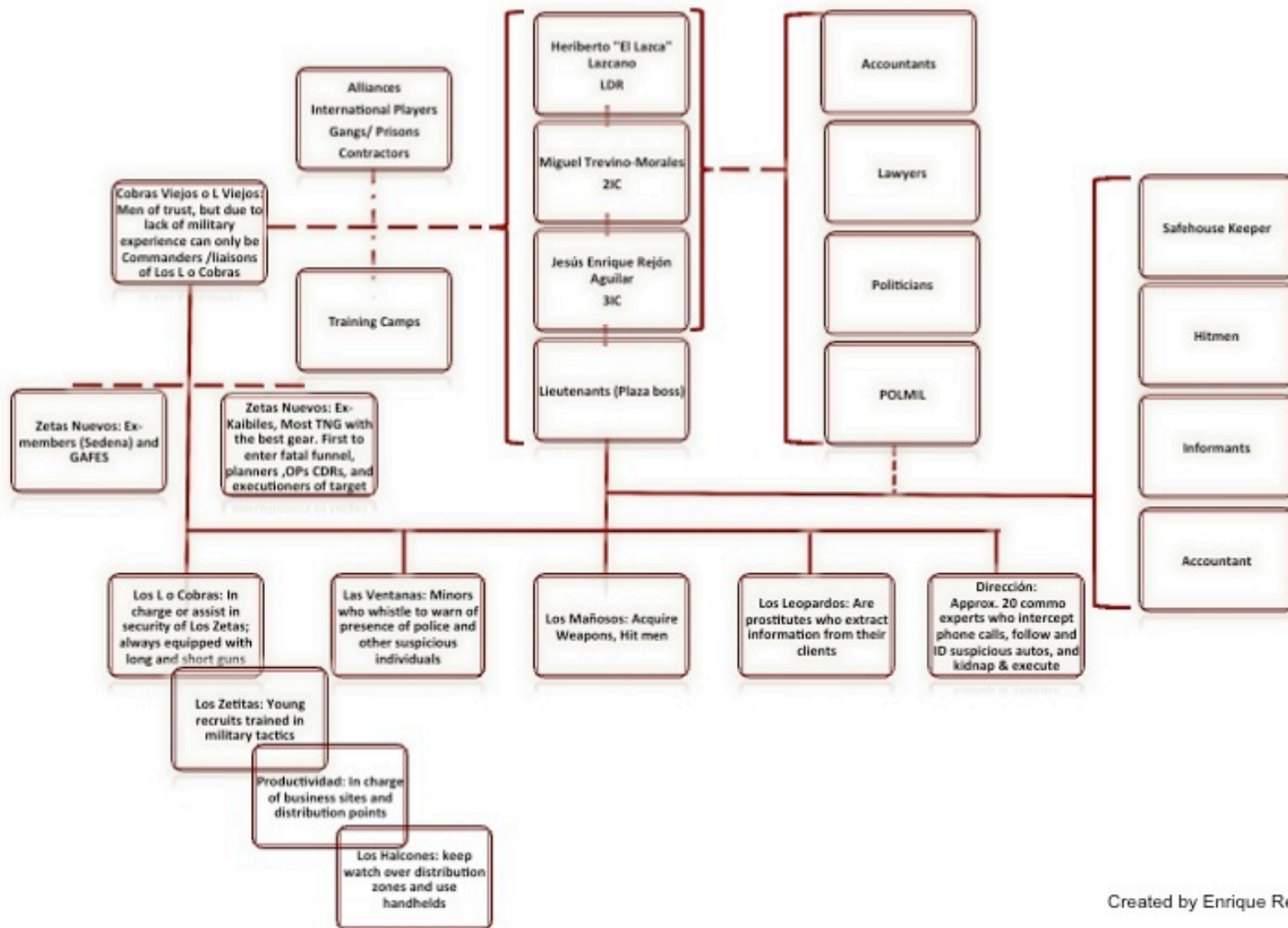
Not surprisingly, Los Zetas quickly established itself as a professional lethal force that accomplished tasks with brutal and unmatched precision. Ultimately, what brought these individuals together to succeed was the desire to make money. Due to its operational efficiency, Los Zetas won the trust of the cartel's leadership and gained access to the drug business. As a result of the ongoing GoM offensive operations against the CDG, its top leader, Cardenas Guillén, was arrested. Guillén's arrest created a window of opportunity for Los Zetas to gain sufficient autonomy to operate on its own, which took a more active leadership role in drug trafficking with the CDG under the name "the Company." The Company was short lived after the CDG killed a close associate to Los Zetas leadership, and ultimately, an all out war ensued. Consequently, as Los Zetas began to operate in the drug business, it changed its composition, purpose, and structure. Los Zetas shifted from simply being the action arm of the Gulf Cartel and making mediocre profits to leaping aggressively into the drug business and making massive amounts of revenue. Concurrently, the criminal syndicate adjusted its organizational structure to adapt to the dynamic environment of the drug trade. In the end, Los Zetas took advantage of a resource that most other cartels lacked—advanced military training. Soon, it had procured a full spectrum of contacts, both indigenous and international, and used military skill to optimize its flourishing drug business.

C. STRUCTURE

Los Zetas' structure displays both centralized and decentralized dimensions in its design as depicted in Figure 1.¹⁵ Heriberto Lazcano is the top leader of Los Zetas; he is one of its original members and his span of control is limitless, such as the expansion of operational reach inside and outside of Mexico or approving affiliation with sister cartels.

¹⁵ It is important to note that any description of Los Zetas described in this thesis only represents a snapshot in time. Specifically, the current hostile environment continuously forces changes against its organizational structure. Hence, the true structure and total membership of Los Zetas is almost impossible to pinpoint.

He has armed security and support rings consisting of lawyers and accountants at his disposal. Ultimately, Lazcano provides a sense of order and structure to Los Zetas, but the daily decision-making process is decentralized down to a subordinate lieutenant, and most tactical moves are driven from the bottom up, although the initial vision and goals derive from the top.



Created by Enrique Reyna

Figure 1. Los Zetas Organizational Structure

Two sub-commanders or confidants are present within the command and control element. The second person in charge runs the operations in Nuevo Laredo and the third person in charge runs operations in several states to the east and south of Nuevo Laredo. Financiers collect all tariffs from all locations. More than 15 mid-level managers comprise below the third in command, which consist of principal lieutenants who run their respective locations. Below each of the principal lieutenants are enforcers charged with the protection of personnel, drugs, transportation, or any other offensive operations, such as assassinations, ambushes, torture, kidnappings, and breaking-out cartel members from prison. Within the span of control of the mid-level management, a robust intelligence network also exists composed of prostitutes, gangs, lookouts, informants, and connections to local police and municipal politicians. Los Zetas has assumed a decentralized management style, which is based on cellular entities each with distinct divisions of labor. These cells remain compartmentalized but periodically collaborate with each other. At this level, enough redundancy occurs that allows commanders of key terrain (i.e., plazas and major roads) to synchronize operations.

Another important factor providing Los Zetas its flexibility and resiliency is secrecy. The secrecy of the organization is molded in the way it is organized, part hierarchy, part decentralized, which allows Los Zetas to project force and maximize profits. For example, the capture of a plaza boss will not endanger the livelihood of Lazcano because of Los Zetas' compartmentalized structure. Los Zetas' often-surreptitious nature has caused rival cartels to hang narco-mantas (narco-banners), calling on Heriberto Lazcano to "fight like a man."¹⁶

D. FINANCE LOGISTICS AND OPERATIONS

Generating revenue is Los Zetas' main goal; the main source of generating money is centered on the drug business. Therefore, it is important for Los Zetas to have a robust logistical mechanism that ensures monetary exchange and the delivery of illegal drugs from point of origin to the end user. Accordingly, Los Zetas maintains a flexible and

¹⁶ "Aparecen Nacomantas Contra El Lazca Varios Estados," *Tribuna Delicias*, February 4, 2011, <http://www.tribunadelicias.com/2011/02/aparecen-narcomantas-contra-el-lazca.html>.

innovative support infrastructure to move drugs into the United States, as well as a consistent cash flow back into Mexico. Three major phases of the drug business help illustrate the extensive support mechanism that Los Zetas has developed to be successful in the drug business. The first consists of drugs that originate in South America and arrive into areas of Panama and Guatemala where Los Zetas moves operations and controls key terrain. Drug shipments arrive at these locations by air, land, or sea and the criminal organization then takes possession. In the second phase, the drugs are then shipped by road or rail into Mexico and injected into the corridor currently dominated by Los Zetas, namely, from the southeastern part of Mexico to its northern border near Nuevo Laredo (see Figure 2). The third phase begins when the shipments reach Nuevo Laredo, which are then divided into smaller bundles passed across the border and into the hands of U.S. gangs affiliated with Los Zetas. Finally, with the same cautionary practice by which the drugs are moved north, the same methods are used to move money and weapons south. Ultimately, it is important for Los Zetas to continue this business process to continue operations.

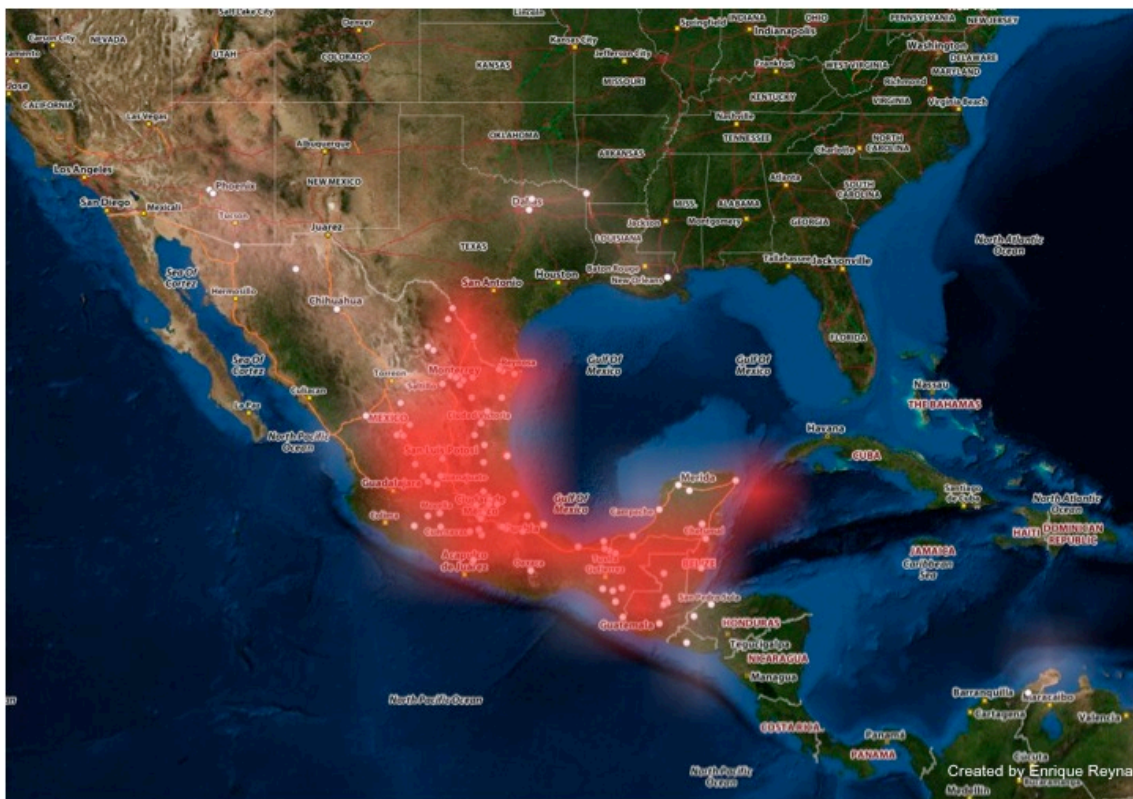


Figure 2. Los Zetas current strongholds

Guatemala, Honduras, and El Salvador have become valuable terrain for Los Zetas to conduct operations. Guatemala, for instance, serves as a reception hub for illegal narcotics in which Los Zetas and associates have built clandestine airstrips, safe houses, and warehouses to smuggle drugs, weapons, profits and humans. In addition, in 2009, evidence emerged that Los Zetas was attempting to leverage access into the Guatemalan Central bank. Honduras Police Director José Muñoz, who has collectively confiscated nearly 12,400 kilograms of cocaine so far this year, calls Los Zetas a monumental adversary that “no nation can take on by itself.”¹⁷ El Salvador’s abundance of weapons and use of the U.S. dollar may make it an easy place to launder drug money; large amounts of cash and the discovery of a purported Zeta training camp near Guazapa have added to fears of a new battleground.¹⁸ Ultimately, places like Guatemala, Honduras, and El Salvador are of increasing strategic value for Los Zetas. Some analysts attribute the shift in operations to the ongoing military strategy against drug cartels in Mexico.¹⁹

Undoubtedly, drug warfare is taking a toll on innocent lives and becoming an irritant to Mexico’s national economy. Even though the Calderón administration unleashed the most aggressive counter cartel strategy in Mexican history, Los Zetas has adapted by developing an increasingly diverse set of fund-raising activities, such as kidnappings, murder-for-hire, assassinations, extortion, money laundering, and human smuggling. Los Zetas appears very much like a global business organization with associates creating market strongholds that can respond to nearly any opportunity, challenge, or dynamic environment rapidly and effectively.

¹⁷ Iris Amador, “Los Zetas Sows Fear While Expanding Reach Throughout Central America,” *Diálogo*, October 17, 2011, http://dialogo-americas.com/en_GB/articles/rmisa/features/regional_news/2011/10/17/los-zetas-in-honduras.

¹⁸ Voicesfromelsalvador, “Los Zetas in El Salvador: Is There a New Gang in Town?” *Voices from El Salvador*, June 30, 2011, <http://voiceselsalvador.wordpress.com/2011/06/30/los-zetas-in-el-salvador-is-there-a-new-gang-in-town/>.

¹⁹ *Ibid.*, 71.

From a logistics perspective, Los Zetas continues to expand its distribution reach, which has grown into a global network. Internally, it has assumed a paternalistic relationship with the people in its zone of operations to gain control, freedom of movement, and increase financial gains. Los Zetas controls key coastal areas, as well as the road networks that lead into the United States.

Currently, six major cartels exist in Mexico. Los Zetas is not the largest cartel but it is certainly the most ruthless element in control of the drug routes along the U.S.-Mexico border. Los Zetas are distinctive. Its territory is incredibly broad, which stretches from the Texas border all the way to Guatemala, and continues to expand. It has also developed its own network of affiliated cartels. In particular, it has worked closely with the Beltran Leyva Organization for gaining access to drug trade contacts in South America, and with the cartels of Juarez and Tijuana, to secure legal point of entries on the U.S.-Mexico border. Los Zetas also has developed ties with the Italian organized crime group NDrangheta for drug distribution purposes. It has also reached out to Guatemalan Kaibiles for operational assistance. Guatemalan Kaibiles are described as the most unrelenting special operations forces in Latin America, which Los Zetas uses for protection, assassinations, and any other work requiring extreme violence tactics. Within the state and municipal level government, Los Zetas is not short of affiliates to support its operational efforts. In areas in which Los Zetas dominate, the local police serve as extortionists, kidnappers, and hired assassins who are on Los Zetas' payroll. Ultimately, the Mexican police are accused of protecting the drug cartels and making fiduciary agreements, which only impedes the federal authorities' battle against the narcotic agents.

E. OPERATIONAL TRENDS

Los Zetas' unlimited access to finances provides it with an unparalleled edge against its competitors and state forces. It is not unusual for municipal police to be outgunned by Los Zetas. Its weapons of choice include a wide range of military grade caliber assault rifles and grenade launchers. It will go to extensive efforts to maintain and regain territory. The killing of innocent people and collateral damage is unimportant. Furthermore, Los Zetas thrives on maintaining the street credibility of ruthless and

violent operators to impute fear in its opposition. Without remorse, torture and beheadings against its enemies seem like an everyday practice, which serves as an effective trademark of distinction for Los Zetas.

F. LANDMARK EVENTS

In early 2011, the death of a U.S. Immigration and Customs Enforcement (ICE) agent was attributed to Los Zetas.²⁰ Reports state that the top leadership of Los Zetas never authorized the assassination of an ICE agent, which was later corroborated in an interview with ‘Z-7’, Jesus Enrique Rejon Aguilar, who is believed to be Los Zetas’ third ranking member.

On another note, recent discoveries of several mass graves have been attributed to Los Zetas. On June 15, 2011, over 190 dead bodies were found in a mass grave near San Fernando in Mexico. Los Zetas controls a large portion of the human smuggling corridors in Mexico and is forcing illegal migrants through dissimulation and other coercive measures, such as working for it as transport mules and extorting money from them. Unfortunately, those who refuse to cooperate are killed and buried in mass graves.

G. CONCLUSION

Since its inception, Los Zetas has successfully evolved and adapted to an ever-changing and violent environment. Considering the effort expended to attack the drug cartels in Mexico offensively, Los Zetas has gained status within Mexico’s criminal underworld. Although the increased offensive operations against drug cartels have afflicted significant damage on the group, it is difficult to determine the true disruption of the criminal organization. Unquestionably, this criminal organization continues to have access to unlimited resources that fund its growth and success. It also continues to gain safe space to expand its operational boundaries.

²⁰ Borderland Beat Reporter Gerardo, “Jesús Enrique Rejón Aguilar, “el Mamito,” Is Captured,” *Borderland Beat*, July 4, 2011, <http://www.borderlandbeat.com/2011/07/jesus-enrique-rejon-aguilar-el-mamito.html>.

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III. SOCIAL MOVEMENT THEORY

A. INTRODUCTION

Los Zetas has emerged as one of the most violent, efficient and successful criminal organizations in Mexico. Although the administration of President Calderon has employed the most effective and aggressive offensive against drug cartels in Mexican history, Los Zetas criminal organization continues to grow and accomplish its illicit activities. An explanation for this conundrum remains unanswered, and is consequently, the purpose of this chapter, which begins by attempting to analyze the effects of the Mexican government strategy and the response from the drug cartels. Collectively, the Mexican drug cartels' fierce inter-rivalry and the Mexican government's strategy, disrupted a long lasting culture of corruption that has contributed to the emergence of militant armed groups like Los Zetas. The counter cartel strategy in Mexico has been narrowly focused and concentrates on leadership targeting in an effort to decapitate drug cartels' top leaders.²¹ Periodically, this strategy has yielded successes, such as the capture of the former Gulf cartel leader Osiel Cárdenas Guillén, but, inadvertently, it has also facilitated the strengthening of other crime syndicates akin to Los Zetas.

In particular, the current strategy has neglected to take a more holistic approach to reducing violence and organized crime in Mexico. More importantly, it disregards the socio-economic conditions and political process that influence a sector of the population to engage in illicit behavior. Consequently, Los Zetas has been able to exploit these opportunities to its benefit. To gain a better understanding of Los Zetas' resilience, this chapter draws on contemporary social movement theory to illuminate Los Zetas' success story.

²¹ "Mexico Politics: Drug War Drags on-Latin America,"

B. ROAD MAP

This chapter begins by presenting a framework that identifies Los Zetas as an applicable case study by using social movement theory. It discusses how Los Zetas at times resembles an insurgency more than it does a traditional criminal organization. The authors contend that Los Zetas closely resembles an insurgency in its tactics and methodology and also emphasizes the ideological differences that exist between insurgent movements and criminal organizations. The second portion of the chapter discusses how the political process model illuminates each of the necessary conditions for social movements and insurgencies to emerge, grow, and succeed. The chapter concludes with a condensed summary of the political process model as it applies to Los Zetas.

C. LOS ZETAS: CRIMINAL INSURGENCY

Since the arrest of the CDG leadership and its new association with rival cartels, Los Zetas has branched off into its own criminal enterprise while persistently undermining the state by establishing “zones of impunity” that attack the competition, and force rival cartels and law enforcement to adjust to the violent environment. Consequent to the increase in violence and lack of government presence in these zones, what increased was a diminished relationship between the population and state institutions charged with preserving the rule of law. Ultimately, Los Zetas has sought to gain the necessary freedom of action to increase its revenue, expand its territory, and protect its current operations. This dynamic presents a critical security challenge for Mexico.²² Arguably, the dynamic of Los Zetas manifests in its footprint as a nontraditional threat, and at times, mirrors the architecture of an insurgency.²³ The intention is not to define Los Zetas as a traditional insurgency but to illuminate how the group’s ability to exploit political opportunities, generate population support, and capitalize on its unlimited access to resources is much like an insurgency.

²² Manwaring, “A “New” Dynamic in the Western Hemisphere Security Environment,” 21.

²³ Robert J. Bunker, *Narcos Over the Border: Gangs, Cartels and Mercenaries* (New York: Rutledge, 2011), 57.

A close examination of the definition of an insurgency further clarifies the point that Los Zetas is not an insurgent group, but that it uses tactics and techniques similar to an organized armed group to achieve its goals. The Special Forces Unconventional Warfare manual defines an insurgency as, “An organized movement aimed at the overthrow of a constituted government through use of subversion and armed conflict.”²⁴ Although this criminal organization uses violent tactics to achieve control of key terrain, subdue political entities, and manipulate the population in similar ways to insurgencies, the difference is that Los Zetas does not show any interest in overthrowing the current regime of Mexico.²⁵ Los Zetas seeks political dominance, not to overthrow the current national government, but to attain freedom of movement and action. Interestingly, it seeks to do this at the state and municipal levels, but not at the federal level.²⁶ With this in mind, based on the assumption that the organization operates similar to an irregular threat, it is important to shift from comparing ideology and tactics to exploring the factors and conditions that enabled Los Zetas’ existence.

D. SOCIAL MOVEMENT THEORY: POLITICAL PROCESS MODEL

Los Zetas exploits several factors that have enabled its emergence, growth and success. These factors consist of shifting political opportunities, access to infinite amount of resources, and a glorified criminal appeal to a large number of the aggrieved population. To understand the aforementioned dynamics further, it is equally important to delve into the political process model.

Historically, aggrieved groups that have desired change in the political environment have given birth to social movements. However, grievances alone are insufficient for the emergence of a social movement. In particular, it takes the expansion of political opportunities, access to sufficient resources, and the development of an

²⁴ “Special Forces Unconventional Warfare training Circular (TC 18-01),” *Department of the Army* (January 2011): 1–2.

²⁵ Manwaring, “A “New” Dynamic in the Western Hemisphere Security Environment,” 22–23.

²⁶ *Ibid.*, 23.

insurgent consciousness for a social movement to emerge.²⁷ The political process model holds that the existence of these factors alone cannot generate insurgency or social movement; however, the fusion of these factors generates the desired outcome.²⁸

E. POLITICAL OPPORTUNITIES

For insurgencies to emerge, an expansion of political opportunities must exist. Political opportunities are open windows in the political environment created by the disruption of the existing political landscape. According to Doug McAdam, expanding political opportunities can be caused by wars, industrialization, international political realignments, poor socioeconomic conditions, widespread demographic changes, just to name a few.²⁹ These events can shape the environment and offer the political openness necessary for insurgent movements to emerge. Political opportunities typically manifest themselves in three primary ways: political instability, shift of the political system, and the state's capacity and propensity for repression.³⁰

For Mexico, poor socio-economic conditions provide a fertile ground for criminal activity to flourish and influence political instability. The business of illegal smuggling and the drug trade date back to the early decades of the 20th century. However, organized crime was never as violent as when Mexico became the main gateway for illegal drugs into the United States. A significant factor contributing to the disruption of its political environment was the strategic impact of the counter-drug trade operations in South America and the Caribbean in the mid and late 1990s.³¹ As U.S. efforts succeeded in toppling the Medellin and Cali cartels in Colombia, the drug trade became more

²⁷ Doug McAdam, *Comparative Perspectives on Social Movements: Political, Opportunities, Mobilization Structures and Cultural Framings* (New York: Cambridge University Press, 1996), 10.

²⁸ As cited in Anil Karaca, "Disrupting Terrorist Networks: An analysis of the PKK Terrorist Organization" (Masters thesis, Naval Postgraduate School, December 2010), http://edocs.nps.edu/npspubs/scholarly/thesis/2010/dec/10Dec_karaca.pdf, 8.

²⁹ McAdam, *Political Process and the Development of Black Insurgency*, 41.

³⁰ McAdam, *Comparative Perspectives on Social Movements*, 2.

³¹ Ed Vulliamy, *Amexica: War Along the Borderline* (New York: Farrar, Straus and Giroux, 2010), 28.

decentralized, which resulted in the creation of weaker and smaller cartels.³² Concurrently, the continuous counter-drug pressures on the drug smuggling routes in the Caribbean created a balloon effect that shifted drug trafficking through Mexico.³³ As a result, the strategic value of Mexico's border with the United States increased, and South American cartels were forced to rely on Mexican criminal entities for their illicit operations. In response to the high trafficking demand, Mexican cartels no longer felt the need to serve as couriers for the Colombian cartels and changed the rules of the trade. Mexican cartels demanded compensation in product and not cash.³⁴

In sum, the impact of the U.S. counter-drug efforts in South America proved to be two-fold. First, it shifted the role of Mexican drug cartels in the drug trade and it increased the amount of illegal drugs flowing into the United States from Mexico. Second, as more drugs began to transit through Mexico, the competition among warring cartels increased. Ultimately, this dynamic had a traumatic effect on Mexico's internal security. In response, the GoM was forced to divert resources to counter these threats.

Adding to this shifting reality was the opening of the Mexican economy and the establishment of the North American Free Trade Agreement (NAFTA) in 1994, which was intended to improve socio-economic conditions. Instead, it contributed to the expansion of political opportunities benefitting the drug trade. Although NAFTA provided some positive stimulus to the Mexican financial sectors, the same can be said about its influence on its dark economy. Interestingly, NAFTA made the ports of entry in Nuevo Laredo one of the most active commercial borders in the world. It is estimated that some 5,000 trucks cross north into Laredo daily.³⁵ As much as 40% of the legal business that enters the United States from Mexico enters through Nuevo Laredo. Unfortunately, approximately 40% of the drugs entering the United States enter in the same fashion.³⁶

³² Colleen Cook, "CRS Report for Congress: Mexican Drug Cartels," October 16, 2007, <http://www.fas.org/sgp/crs/row/RL34215.pdf>.

³³ Vulliamy, *Amexica: War Along the Borderline*, 28.

³⁴ *Ibid.*, 28–30.

³⁵ *Ibid.*, 237.

³⁶ *Ibid.*, 242.

Arguably, Nuevo Laredo has become the most prized plaza in Mexico.³⁷ Once the gates into the United States were opened, it triggered three hostile fronts between the CDG, the Sinaloa cartel, and the Mexican security forces.³⁸ The end result of NAFTA has been the creation of a precious business opportunity that fueled a latent security problem, which exacerbated the escalation of violence, ungoverned space and overall instability of the state. Therefore, Mexico's capacity to stabilize the environment is challenged by the ongoing turf battles in this region of the country.

Considered as the tipping point, the factor that expanded Los Zetas' opportunities was the disruption of the established link between the government and drug cartels, which existed for over 70 years. The actions taken by the National Action Party (PAN) severed this relationship of corruption after the electoral defeat of the Institutional Revolutionary Party (PRI) in 2000.³⁹ Previously, under PRI rule, the government served as an intermediary institution between existing cartels, which allowed the cartels limited operational freedom through informal patronage of politicians and state institutions. Once the PAN came to power, Fox's counter-drug strategy that consisted of dismantling drug cartel operations disrupted this relationship. This shift in strategy forced existing cartels to innovate and seek self-preservation tactics. As a result, this shift gave rise to drug cartels' private armies, such as Los Zetas.⁴⁰

An additional significant factor contributing to political opportunities was the government's inability to run its institutions. If the existing government provides a stable environment and runs the political infrastructure with effectiveness, then the opportunities for resistance groups or criminal entities diminish. Conversely, when the government fails to run its institutions effectively, it inadvertently fuels political instability. In the case of Mexico, President Fox's counter-cartel strategy was negatively affected by a lack of institutional reforms for its security apparatus, which facilitated the

³⁷ Vulliamy, *Amexica: War Along the Borderline*, 31.

³⁸ *Ibid.*, 31, 33, 35.

³⁹ Manwaring, "A "New" Dynamic in the Western Hemisphere Security Environment," 21.

⁴⁰ *Ibid.*, 17–18.

advancement of the criminal organization's goals.⁴¹ The "plata o plomo" (silver or lead) tactic, used by the drug cartels, consisted of intimidating judges, politicians, policemen, and businessmen by giving them the choice between taking a bribe or a bullet.⁴² With its uninterrupted ability to amass finances and its employment of coercive tactics and violent techniques, Los Zetas managed to corrupt politicians, judges and policemen or executed them at will.⁴³ Once the previous relationship between government and cartel was disrupted, the federal government's inability to control corruption at the lower levels enabled the drug cartels and private enforcer groups to emerge. A concluding point here is that Fox should have reformed government institutions with the same intensity that he attacked drug cartels. Unfortunately, the existing government institutions were too corrupt, and failed to adjust to the abrupt change in strategy implemented by Fox.

Political opportunities are also influenced by the state's capacity and propensity for repression. The government's ability to repress a movement negatively affects the expansion of political opportunities. McAdam cites various examples to illuminate this point and concludes that the reason for the success of these movements is in part due to the lack of capacity by the government to repress them.⁴⁴

The GoM's response against organized crime is based on an entropic strategy that focuses on targeting cartel leadership. Security forces fail to realize that pursuing the sequential targeting of cartel leadership creates a power vacuum that only cultivates competition and escalation of violence.⁴⁵ This response creates second and third-order effects that exacerbate the exact problem it intends to solve.

⁴¹ Bunker, *Narcos Over the Border*, 97.

⁴² Vulliamy, *Amexica: War Along the Borderline*, 237.

⁴³ George W. Grayson, *Mexico: Narco-Violence and a Failed State?* (London, U.K.: Transaction Publishers, 2010), 31.

⁴⁴ Doug McAdam, "Political Opportunities: Conceptual Origins, Current Problems, Future Directions," in *Comparative Perspective on Social Movements*, ed. Doug McAdam, John McCarthy, and Mayer Zald (New York: Cambridge University Press, 1996), 28.

⁴⁵ Hatty Copeman, "Mexican Drug War Escalates. War on Drugs Is a Failed War Pushing Mexico into a Downward Spiral," *LatinAM/Caribbean Affairs*, <http://www.suite101.com/content/the-mexican-drug-war-a172889>.

Although Fox's administration showed some willingness to confront organized crime by disrupting the long lasting nexus between cartels and government, it failed to realize that it lacked the physical capacity to do much about it. The Mexican forces are ill equipped and poorly trained. The lack of opportunities in promotions and quality of life encourage a high level of desertion and renders the state forces almost incapable against well-armed cartels.⁴⁶ In the end, the mediocre government's response gave Los Zetas room to adapt and improve its organization.

F. RESOURCE MOBILIZATION

Historically, social movement theorists based most of their work on the assumption that the conditions necessary for movements to grow consists primarily of the existence of collective grievances. McCarthy and Zald did not completely dismiss the importance of grievances, but concluded that they were secondary in importance to resources.⁴⁷ This section focuses on understanding how the availability of resources influences collective action to develop and how these factors apply to Los Zetas.

Several incidents illuminate the significant increase in available resources that lured the initial cadre of Los Zetas into the criminal world. First, the CDG, under the control of Juan Garcia Abrego in the 1980s, switched from trafficking marijuana to smuggling cocaine.⁴⁸ The high demand for drugs and access via the Nuevo Laredo plaza guaranteed his increased financial power. As a result, Garcia Abrego became the first drug dealer to make the Federal Bureau of Investigation's (FBI) ten most wanted list. After his extradition, Osiel Cárdenas Guillén took control of the CDG.⁴⁹ Cardenas then sought the recruitment of military members to work for him. He successfully recruited Arturo Decena, who recruited an unknown number of former and active Mexican Special

⁴⁶ Grayson, *Mexico*, 157.

⁴⁷ John D. McCarthy and Mayer N. Zald, "Resource Mobilization and Social Movements: A Partial Theory," *The American Journal of Sociology* 82, no. 6 (May 1977): 151, <http://www.jstor.org/stable/2777934>.

⁴⁸ Vulliamy, *Amexica: War Along the Borderline*, 32.

⁴⁹ *Ibid.*, 32.

Forces members.⁵⁰ Initially, it was only through the close ties, cohesion, and trust that existed within the ranks of this military unit that Decena initially recruited former servicemen to form Los Zetas. Inevitably, the opportunity to make money also became a significant motivational factor that brought in the initial cadre of Zetas.

Second, the existence of an established organization also provides the means to accumulate the necessary resources.⁵¹ For Los Zetas, this organization became the Special Forces unit for which its members had previously served. The former Special Forces members shared a sense of identity, history, cohesion, discipline, and a code of conduct. Ultimately, the former military unit provided the network ties, initial leadership and common ground necessary to form Los Zetas.

In Mexico, a well-established network of nightclubs, casinos, and black markets offer institutional opportunities to attract ideal recruits and generate finances, which in turn, helps with growth and expansion. The ideal recruit is young and easily impressionable.⁵² Those who live on the periphery of society are easy subjects for recruitment, as very limited opportunities exist for legitimate employment, which leaves the criminal world as the only rational option for sustenance.⁵³

Third, from an economic standpoint, the concept of supply and demand is directly affected by the growth or compression of a social movement.⁵⁴ For a criminal organization like Los Zetas, an increase in financial gain translates into an increased ability in fighting power, terrain expansion, and pre-eminence over a rival stronghold. Therefore, it can be concluded that an increase in financial leverage for Los Zetas will significantly increase its size and operational capacity.⁵⁵

⁵⁰ Vulliamy, *Amexica: War Along the Borderline*, 33.

⁵¹ McCarthy and Zald, "Resource Mobilization and Social Movements."

⁵² Bunker, *Narcos Over the Border*, 72.

⁵³ Brenda Fiegel, "The Recruitment of Assassins," *Fort Leavenworth Kansas* (2009), <http://FMSO.leavenworth.army.mil>.

⁵⁴ McCarthy and Zald, "Resource Mobilization and Social Movements," 152.

⁵⁵ Bunker, *Narcos Over the Border*, 70.

After the disruption of the symbiotic relationship with the CDG, the expansion of terrain and significant growth for Los Zetas was inevitable. The separation between the two entities left a power vacuum and opened new windows of opportunities. Los Zetas seized the opportunity to capture CDG's territory and remove it from its control, which led Los Zetas to grow to an estimated 4,000 strong.⁵⁶

G. DEVELOPMENT OF AN INSURGENT/CRIMINAL CONSCIOUSNESS

Aggrieved individuals and oppressive conditions exist in certain sectors of society; the same can be said about the presence of organized platforms and the flow of resources. The existence of aggrieved individuals, resources, and political opportunities alone do not lead to collective action's emergence. The development of an insurgent consciousness is also necessary.⁵⁷

The development of an insurgent consciousness begins with the collective awareness of individuals that something can be done about social conditions. However, this development only occurs through the interpretation of significant events, worldviews, and ideology.⁵⁸ Grievances must be framed in ways that define certain shared values, goals, and beliefs that connect individuals together. The shared interpretation of these experiences can result in the development of an insurgent consciousness.⁵⁹

Ultimately, the development of the consciousness in the context of Los Zetas befits the development of a criminal state of mind that supports its illicit activities. For example, the violence in Mexico can partially be attributed to the lack of socio-economic opportunities that exist in Mexican society, which then manifests itself as a vulnerability that criminal entities exploit to gain collective support of both the population and certain levels of state institutions. For Los Zetas, joining the CDG provided the means to

⁵⁶ Vulliamy, *Amexica: War Along the Borderline*, 33.

⁵⁷ McAdam, *Political Process and the Development of Black Insurgency*, 48.

⁵⁸ Doug McAdam, John D. McCarthy, and Mayer N. Zald, *Comparative Perspectives on Social Movements: Political, Opportunities, Mobilization Structures and Cultural Framing* (New York: Cambridge University Press, 1996), 8.

⁵⁹ David A. Snow, Burke E. Rochford, Jr., Steven K. Worden, and Robert D. Benford, "Frame Alignment Processes, Micromobilization, and Movement Participation," *American Sociological Review* 51, no. 4 (August 1986): 465, <http://www.jstor.org/stable/2095581>.

improve economic conditions and exploit other opportunities.⁶⁰ Arguably, Los Zetas was also motivated by trust, cohesion, and a shared worldview; these attributes are inherent in small military organizations like GAFEs.

Important factors in the development of the insurgent consciousness are the techniques and channels used in the interpretation of events to increase movement participation. According to Bert Klandermans, “anything that can be used to communicate meaning is applicable in campaigns to mobilize consensus.”⁶¹ Los Zetas attracts individuals through its interpretation of poor socio-economic conditions and exploits the government’s lack of response to improve them. By using the Internet, newspapers, banners and radio messaging, Los Zetas is able to coerce a large sector of the young unemployed male population into pursuing criminal solutions to perceived grievances.⁶² For example, in 2008, Los Zetas displayed a banner urging active military and former members to join them by promising concessions.⁶³ The use of narco-banners and employment advertisements on the Internet are just a few of the methods that Los Zetas employ to lure potential members to fill its ranks.

Another important element in the development of the insurgent consciousness is the extension of movement boundaries. The expansion of the social movement boundaries reaches individuals who do not immediately identify with the insurgent ideals, or in this case, the criminal organization’s goals. Los Zetas reaches out to communities to win their support. Local support allows for greater freedom of movement while conducting its operations.⁶⁴ This process adjusts the interpretation of group values to match those of isolated individuals to entice them.⁶⁵ For example, in Nuevo Leon, Los Zetas mobilizes the population against the military by exploiting the existing human

⁶⁰ Grayson, *Mexico*, 180–181.

⁶¹ Bert Klandermans, “The Formation and Mobilization of Consensus.” in *From Structure to Action. Comparing Social Movements Across Cultures*, ed. Bert Klandermans, Hanspeter Kriesi, and Sidney Tarrow (Greenwich, CT: JAI-Press, 1988), 175–177.

⁶² Bunker, *Narcos Over the Border*, 72.

⁶³ Fiegel, “The Recruitment of Assassins.”

⁶⁴ *Ibid.*

⁶⁵ Snow et al., “Frame Alignment Processes, Micromobilization, and Movement Participation,” 474.

rights violations against them. Its methods to gain support include the distribution of gifts, toys and school supplies among the poor.⁶⁶ In exchange, sectors of the population erect anti-military banners and conduct demonstrations against military presence in its area of operations. Los Zetas is able to mobilize over 30,000 people at a time, which facilitates the blocking of roads to obstruct the reaction of military and federal police.⁶⁷

Other channels of communications used by Los Zetas in developing an insurgent consciousness are music and religion. For example, Los Zetas has its own song entitled “Escolta Suicida” (i.e., “Suicidal Bodyguard”), which accentuates its military discipline, and unit cohesion, as well as glorifying its criminal image by alluding to its kamikaze operational ideology.⁶⁸ Los Zetas attempts to project an attractive image that appeals to the younger male population and ultimately lead to participation. A more recent attempt at framing is the saint of death worship used by Los Zetas to justify its violent actions,⁶⁹ which is gaining popularity among the poorer sectors of Mexico and provides a common ground between potential members and the organization.⁷⁰

In sum, Los Zetas attempts to influence the hearts and minds of individuals by several means. It continuously frames events to exploit the poor socio-economic conditions to attract support and participation. The organization’s resources, coupled with the lack of opportunities available to the aggrieved population, tend to favor Los Zetas’ modus operandi to develop an insurgent criminal consciousness.

H. CONCLUSION

In conclusion, Los Zetas manifests itself as the most dangerous criminal organization in Mexico. It successfully applies violent tactics similar to those of

⁶⁶ Grayson, *Mexico*, 156, 189.

⁶⁷ *Ibid.*, 189.

⁶⁸ Anabel Hernandez, *Los Senores del Narco* (Mexico: Random House Mondadori), 398.

⁶⁹ Grayson, *Mexico*, 185, 190.

⁷⁰ Angela Kocherga, “Narco Culture Glamorizes Violent Lifestyle in Mexico and in Texas,” <http://www.kens5.com/news/Narco-culture-flamorizes-violent-lifestyle-in-Mexico-and-in-Texas-116542083.html>.

insurgencies. It also seeks a certain degree of political influence and a strong support base at the municipal level. Although it does not seek to replace Mexico's government, it seeks control of space and freedom of movement.

Seen through the lens of social movement theory, and more specifically, the political process model, certain factors that help to explain the Los Zetas' emergence and success have been identified. The presence of political opportunities, available resources and the development of an insurgent consciousness, have allowed criminal organizations like Los Zetas to emerge, grow, and succeed. Political opportunities have provided exploitable gaps in the environment that allowed it to emerge. The government's inadequate response, consistent with targeting cartel leadership, created power vacuums, and competition, has contributed to the increase in violence. Access to large amount of resources sustains the continued growth of the organization. Los Zetas, through a diversity of illicit activities, has increased its access to material resources that support the group's ability to corrupt and coerce both governmental institutions and the population. Finally, the development of an insurgent consciousness has helped to link individuals to the organization. The exploitation of the limited opportunities for the aggrieved population favored the development of an insurgent criminal consciousness sympathetic to Los Zetas. In the end, the methods to amass financial power have made Los Zetas a powerful criminal enterprise in Mexico today. This topic deserves a closer look, and consequently, is the subject of the next chapter.

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IV. FINANCE

A. INTRODUCTION

Los Zetas looks much like a global business organization, which responds rapidly and effectively to nearly any opportunity within its volatile environment. To maintain its fluid adaptability and versatility against counter drug efforts, the organization requires essential financial resources. It acquires the necessary resources by maintaining a sustained competition against rival cartels for the estimated \$30 billion dollars generated by the drug trade in Mexico.⁷¹ Conveniently, Mexico's geographical location serves as a corridor to the largest illicit drug market in the world. Sources estimate that over 90% of the cocaine that enters into the United States originates in South America and passes through its southern neighbor, which in turn, generates the necessary resources needed for cartels to remain operational.

Los Zetas also exploits other lucrative opportunities that provide a significant amount of revenue to sustain its operations. During the three-year investigation, "Crime 3" established that Los Zetas operates in New York and supplies South American cocaine to the port of Gioia Tauro, which is in southern Italy and the port of entry to Europe.⁷² George W. Grayson, from the Foreign Policy Research Institute, wrote that Los Zetas has developed an increasingly diverse set of activities to maximize the profits of its business model. Furthermore, Grayson stated, "They [Los Zetas] have branched out into kidnappings, murder-for-hire, assassinations, extortion, money-laundering, and human smuggling."⁷³ In addition, Grayson said property ownership traced to Los Zetas in the United States ranges from pharmacies to nightclubs and resorts used as fronts "to launder

⁷¹ Oriana Zill and Lowell Bergman, "Do The Math: Why the Illegal Drug Business is Thriving," *Frontline: Brilliant Investigative Reporting*, <http://www.pbs.org/wgbh/pages/frontline/shows/drugs/special/math.html>.

⁷² Julio I. Godínez Hernández, "Italian and Mexican Partners in Crime Seek to Control Cocaine in Europe," *MexiData.info*, August 15, 2011, <http://www.mexidata.info/id3103.html>.

⁷³ George W. Grayson, "Los Zetas: The Ruthless Army Spawned by a Mexican Drug Cartel," *Foreign Policy Research Institute*, May 2008, <http://www.fpri.org/enotes/200805.grayson.loszetas.html>.

their drug profits.”⁷⁴ Alternatively, because of the Merida initiative, the collaboration between Mexico and the United States to combat the illegal drug trade and seize significant amounts of illegal revenue has reached novel levels of success. Additionally, improvements to the “Kingpin Act” provide the additional leverage to counter the unlimited access of illicit proceeds to drug trafficking organizations. Arguably, the Mexican and U.S. governments have aggressively devised an improved counter-cartel strategy, but Los Zetas still manages to control enough financial resources to sustain and grow its organization.

B. MONEY LAUNDERING

Over the years, Los Zetas has become innovative and diversified the movement and laundering of money to finance its illicit activities. Not only is it using the latest technological means, such as electronic transfers through Money Services Businesses (MSB) and Traditional Depository Institutions (TDI) (banks), but it is also using rudimentary methods to include bulk cash smuggling, piracy, and theft. Additionally, the cartels have created legitimate front companies and traded real estate to funnel their illicit funds. Unfortunately, for Los Zetas, many of these methods are at times easily detectable and are well known to law enforcement entities. However, local business leaders and politicians are personally capitalizing on the cartel’s efforts and standing in the way of exposing and prosecuting these illegal activities, as in the case of numerous casinos operating in Monterrey. Nevertheless, Mexican state legislatures are attempting to combat money laundering in and outside their borders.

C. BULK CASH SMUGGLING

Due to the continual heavy demand for illegal drugs in the United States, Los Zetas has become more powerful and dangerous in its effort to monopolize the entire North American illegal drug trade. Therefore, it is not surprising that an increase in cash smuggling operations from U.S. drug markets returns to Mexico through the southwest

⁷⁴ Rema Rahman, “Organized Crime a National Security Risk for U.S. Markets,” *Medill News Service*, August 4, 2011, <http://www.thecre.com/cc/?p=380>.

border. The method of choice to move the illegal U.S. drug profits is bulk cash smuggling. Bulk cash smuggling essentially is a low tech, yet innovative method, in which the Mexican drug cartels wrap bundles of \$20 or \$100 U.S. bank notes in plastic and stash them in unconventional ways, such as in tires and engine compartments of cars and trucks before transporting them across the border.

The main reason for applying this course of action is enhanced U.S. anti-money laundering (AML) regulations, such as the USA PATRIOT Act and law enforcement actions that have made it more difficult to deposit drug proceeds into traditional U.S. financial institutions and then electronically wire them to recipients in Mexico. Consequently, Los Zetas has devised innovative methods to smuggle large amounts of cash through the southwest border effectively and efficiently. For example, vehicles have been modified and turned into large concealment devices to transport large sums of money. These methods are not easily detected by border agents and would require increased expenditure of resources if agents were expected to disassemble a suspected vehicle or trailer.

The support infrastructure of drug cartels is as extensive as it is costly. Los Zetas has included in its payroll an array of employees ranging from politicians, policemen, accountants, smugglers, assassins, and lookouts to sustain their operations.⁷⁵ Therefore, the process of repatriating money is just as important as the process that generates it. Arguably, denying Los Zetas access to money will diminish its operational capacity.

For Los Zetas, southern Texas cities serve as primary hubs for centralizing money going south. Once money arrives at a collection point, it is redistributed into smaller bundles and passed to trusted agents or family members to move it across the border. Once the money is smuggled into Mexico, it is moved to safe houses primarily located in Monterrey and Nuevo Laredo. Accountants, who are charged with bookkeeping responsibilities, occupy the safe houses and keep the organization running.⁷⁶ From the

⁷⁵ Ray Walser, "U.S. Strategy Against Mexican Drug Cartels: Flawed and Uncertain," *Heritage Foundation*, April 26, 2010, <http://www.heritage.org/research/reports/2010/04/us-strategy-against-mexican-drug-cartels-flawed-and-uncertain>.

⁷⁶ Robbin Emmot, "Cartel Inc: In the Company of Narcos," *Reuters*, January 14, 2010, <http://www.reuters.com/article/2010/01/14/us-drugs-mexico-business-idUSTRE60D4XS20100114>.

safe houses, the money is typically washed through local businesses and casinos, which provide false documentation.⁷⁷ Another option is to deposit money into less regulated Mexican financial institutions, such as banks and money exchange institutions, and then wire it to other financial institutions in Mexico. The money then returns to the United States and other countries that assist in facilitating the black market peso exchange. Next, the cash is then brought back to the United States by Mexican financial institutions as part of normal operating procedures, and the money is recirculated. Thus, Los Zetas can move the cash into international banks in Central America and South America or reinvest it into properties or other commodities to be spent on cartel operational expenses.⁷⁸⁻⁷⁹

D. MONEY SERVICE BUSINESSES

Although bulk cash smuggling is on the rise, it can be cumbersome and, more importantly, susceptible to total loss when detected and confiscated by border agents. Therefore, criminal organizations have diversified their money movement by turning to MSB, which provide a variety of money services, including exchanging cash for money orders, check cashing, money wiring, and selling of stored value cards. Los Zetas and its affiliates in the United States utilize the MSB as a mode to launder illicit funds to Mexico mainly due to convenience and relatively low governmental regulations.

While MSB are not as regulated as TDI (banks), wiring money internationally, regardless of means, tends to have more oversight. Therefore, to avoid suspicion, illicit proceeds are wired within the United States to collection points in the southwest border states. Subsequently, the money is moved across the border into Mexico through bulk cash smuggling operations. This procedure saves time and resources and reduces the interdiction threat by avoiding the extra step of physically moving large amounts of cash across the country. Notably, Mexico is the primary destination for suspicious and illegal funds sent through MSB in the United States.⁸⁰

⁷⁷ Geoffrey Ramsey, "Behind the Battle for Monterrey," *InSight*, June 3, 2011, <http://insightcrime.org/insight-latest-news/item/1026-behind-the-battle-for-monterrey>.

⁷⁸ National Drug Threat Assessment 2008, National Drug Intelligence Center, October 2007.

⁷⁹ Emmot, "Cartel Inc: In the Company of Narcos."

⁸⁰ National Drug Threat Assessment 2008.

E. TRADITIONAL DEPOSITORY INSTITUTIONS (BANKS)

The USA PATRIOT Act tightened AML programs, which presumably made it more difficult to funnel terrorist (criminal) financing activities through TDI (banks). Due to this initiative, criminal organizations have evolved in their repertoire of money laundering by turning to the already mentioned bulk cash smuggling and MSB. However, the criminal organizations have not completely ruled out utilizing TDI and have learned to adjust their illicit procedures. One popular tactic is to deposit illicit money in U.S. bank accounts and then almost simultaneously withdraw it from ATMs located in other locations. This tactic is used before the banking system has a chance to detect suspicious activity and block further transactions.⁸¹

F. LEGITIMATE/FRONT COMPANIES

Criminal organizations operate legitimate companies and/or front companies throughout the United States, such as used car lots, restaurants, liquor stores, and gambling businesses to move and launder U.S. drug proceeds. Los Zetas has increasingly purchased and operated these type businesses along the southwest United States border states.⁸² This activity is not much different from what Mafia organizations have been doing in the United States for the last century. The front companies give the drug traffickers a central location where proceeds are taken and provide a legitimate cover for status and action for continual illegal activity.

G. THEFT

All criminal organizations have resorted to thievery to supplement their financial cash flow. The Mexican drug cartels are no exception and have found ways to launder the proceeds from stolen goods in clever ways. The most prevalent items stolen are oil and gas products, luxury automobiles, natural minerals, such as gold and copper, and any other high valued item that can be sold with relative low traceability. The most notorious

⁸¹ National Drug Threat Assessment 2008.

⁸² BBVM, "Los Zetas Investing in Legitimate Business," *Big Bear Observation Post*, December 7, 2009, <http://bbvm.wordpress.com/2009/12/07/los-zetas-investing-in-legitimate-business/>.

and genius theft operation conducted regularly by Los Zetas involves siphoning massive amounts of oil from the Mexican pipeline and then selling it to U.S. based refineries at a discount. This operation causes a two-fold problem for the Mexican government; it loses proceeds from the sale of oil (over \$1 billion) and Los Zetas' financial strength increases. More alarming is the fact that Los Zetas has penetrated the maximum-security fences used to secure the pipelines.⁸³

H. PIRACY

Los Zetas also distributes pirated media products in northern and southeastern Mexico. In one instance, a member of Los Zetas, known as the “Czar of Piracy,” ran a business selling pirated CDs and DVDs that generated approximately \$1.8 million dollars monthly.⁸⁴ Piracy activities undermine U.S. sales of genuine products and deny U.S. copyright holders their profits. Mexican companies lost some \$3.07 billion in 2009 because of piracy and merchandise theft, according to a report from Grupo Multisistemas de Seguridad Industrial, an electronic security services firm.⁸⁵ In addition to Tamaulipas, Coahuila, and Nuevo Leon, Los Zetas has also taken over the piracy business in Chiapas, Tabasco, Veracruz and Puebla, where protection and financial gain is an incentive for street merchants. Los Zetas has also entered the illegal liquor business; in northern Monterrey, Mexican Marines found approximately 100 boxes of adulterated whiskey and tequila in several houses. Reprehensibly, the municipal alcohol director, Rogelio Angel Gonzalez, was arrested at city hall for assisting Los Zetas to distribute the alcohol at bars and nightclubs in Monterrey.⁸⁶

⁸³ “NarcoPetro Dollars—Zetas Inside Pemex,” *NarcoGuerra Times*, July 31, 2009, <http://narcoguerratimes.wordpress.com/2009/07/31/narcopetro-dollars-zetas-inside-pemex/>.

⁸⁴ “Mexico's Drug Cartels & The Drug War, “Don Gaby: Crime Boss Who Ran Piracy Business Killed in Mexican Prison,”” *Mexico Travel Forums*, January 10, 2011, <http://www.mexico.vg/mexicos-drug-cartels/don-gaby-crime-boss-who-ran-piracy-business-killed-in-mexican-prison/1844>.

⁸⁵ Borderland Beat Reporter Buggs, “Mexico Ends Deadliest Year of Drug Crackdown,” *Borderland Beat*, December 31, 2010, http://www.borderlandbeat.com/2010_12_01_archive.html.

⁸⁶ Buggs, “Mexico Ends Deadliest Year of Drug Crackdown.”

I. REAL ESTATE

The Mexican drug cartels are purchasing vast amounts of real estate in the United States and Mexico to house and secure money for laundering, weapons, and drugs. The Mexican military has seized ranches, homes and warehouses owned by Los Zetas in Coahuila.⁸⁷ In addition, the military has seized properties in Tamaulipas, Nuevo Leon, and in the southern states. The process is much like the legitimate business situation in which money is completely legitimate once the real estate is purchased and sometimes subsequently sold at a profit. The transaction also appears legitimate since owning land, homes, or business property is usually a “clean” transaction as opposed to suspicious front companies traditionally known to be illegal financial havens.

J. EXTORTION AND KIDNAPPING

Due to the significant amount of military and law enforcement pressure exercised against Los Zetas, this criminal enterprise has ventured into other means of generating revenue. Analysts assert that the increased numbers of extortions and kidnappings is the unintended outcome of Calderon’s offensive strategy against cartels.⁸⁸ As a result, Los Zetas has expanded its criminal activities into extortion and kidnapping practices by exploiting multiple opportunities. The most common extortion methods include telephonic threats, mafia style charges for protection, business scams in the United States and Mexico, human trafficking, and the taxing of immigrants.

Extortion practices by Los Zetas have proven to be a lucrative tactic and provide a continuous flow of finances. “Extortion fees over the six months totaled more than a half million dollars, ranging from \$200 to \$85,000 in more than 100 cases.”⁸⁹ Ransoms are

⁸⁷ Vromo, “Decomisan toneladas y rancho a los Zetas en #Monclova,” *SatiraLirica.com*, May 25, 2011, <http://satiralirica.com/2011/05/decomisan-toneladas-y-rancho-a-los-zetas-en-monclova.html>.

⁸⁸ Ioan Grillo, “Mexican Cartels Move into Extortion: Businesses for to Pay Protection Money to Survive,” *Global Post*, September 6, 2011, http://www.tucsonsentinel.com/nationworld/report/090611_mexico_cartels_bribes/mexicos-cartels-move-into-extortion/.

⁸⁹ Lorena Segura and Mica Rosenberg, “Mass Kidnappings New Cash Cow for Mexico Drug Gangs,” *Reuters*, April 11, 2011, <http://www.reuters.com/article/2011/04/11/us-mexico-drugs-migrants-idUSTRE73A2D220110411>.

tailored to the victims. If targeted individuals hesitate to pay even small amounts, the response may be merciless. Typically, unpaid ransoms result in the return of severed body parts to the victim's family as a sign of worse to come.⁹⁰

As with most Los Zetas' criminal operations, kidnappings and extortions are methodically planned and precisely executed. The kidnapping operation involves an elaborate plan that begins with surveillance on the target's family and dwelling to document the daily routine. Typically, during the initial contact of these extortion operations, a Zeta member will contact a potential target over the telephone and attempt to extort money from that individual.⁹¹ The information collected provides leverage for intimidation to establish a sense of fear and credible threat against the targeted individual. Most of the time, extortion demands require money be transmitted through either a deposit, a transmittal through a money service business, or a similar form of electronic or credit type transaction to mitigate the possibility of law enforcement intervention.⁹²

According to Luis Wertman Zlav, who is the President of the Citizens Council for Public Safety and Law Enforcement in Mexico City, criminal extortion phone calls increased over 210% from 2009 to 2010.⁹³ He claims that by December 2010, approximately 6,311 telephone calls made to threatened citizens were attributed to Los Zetas. Additionally, over 352,000 complaints of extortion via telephone were made in 2010, of which 10,698 were successful and 341,017 were thwarted. In 2010, officials reported that 3,190 of the extortion attempts registered demanded that victims deposit money electronically.

⁹⁰ Barnard R. Thompson, "Kidnappings Are Out of Control in Mexico," *Mexidata.Info*, June 14, 2004, <http://mexidata.info/id217.html>.

⁹¹ Gustavo Castillo García, "Los Zetas Hit Men Also into Kidnapping & Extortion," *Mexidata.info*, Monday, April 11, 2011, <http://mexidata.info/id2997.html>.

⁹² Audio link on YouTube of a failed extortion attempt that displays telephone extortion tactics. YouTube, "A Masterclass on How to Deal with Phone Extortionists," *The Daily Mexican*. <http://www.youtube.com/watch?v=E5YViZ6qklg>.

⁹³ El Blog Del Narco, "Extortion Calls by Alleged ZETAS Hikes Up 210%," *Hispanically Speaking News*, December 7, 2010, <http://www.hispanicallyspeakingnews.com/el-blog-del-narco/details/extortion-calls-by-alleged-zetas-hike-up-a-210/3387/>.

Another type of extortion employed by Los Zetas is a mafia-style payment for protection. Wealthy families and businessmen are often targeted in this fashion. Most targeted families willingly pay the money up front to avoid future extortions. Unfortunately, wealthy families are not the only targets for protection and extortion schemes. Los Zetas also targets teachers and other individuals who are members of unionized organizations. Experts estimate that these criminal organizations are gaining inside access to victims' personal information, such as bonuses, payment schedules, and even personal identifiable information to enhance extortion efforts. Typically, intimidation signs are posted on school grounds, and threatening letters are sent to parents and teachers that demand they pay their salaries and forfeit their Christmas bonuses to the extortion cells. Consistent with Los Zetas tactics, when demands are not met, the school grounds are then destroyed and buildings torched.⁹⁴ Surprisingly, this type of extortion is even finding its way across the border and targeting U.S. businessmen, most whom are of Mexican descent, and vulnerable to threats against family members who still reside in Mexico.⁹⁵

Los Zetas is also earning a steady stream of cash from the mass kidnapping of migrants.⁹⁶ These undocumented immigrants are risking their lives to find a job in Mexico or on U.S. soil. Coincidentally, illegal immigrants have two borders to traverse. The journey typically requires them to move across the Central American-Mexican border and Mexican-U.S. border. Immigrants moving north mostly use freight trains to transit through Mexico and pass through Los Zetas controlled territory.⁹⁷ Los Zetas selectively pull immigrants off the trains with automatic weapons, and lock them in small rooms, beat them, and extract the phone numbers of relatives (in the United States) to start ransom calls. Unfortunately, those who survive are forced to work as soldiers or mules to transport drugs across the U.S. border. On August 24, 2010, 72 immigrants,

⁹⁴ Nolan Beiner, "Extortion of Mexican Schools: Parents Stand Guard," *M&C News*, January 15, 2011, http://www.monstersandcritics.com/news/americas/features/article_1612042.php/Extortion-of-Mexican-schools-Parents-stand-guard-Feature.

⁹⁵ Anonymous, "Kidnapping and Extortion in U.S. from Mexico," *Borderland Beat*, April 26, 2011, <http://writersoftheriogrande.com/2011/04/kidnapping-and-extortion-in-us-from-mexico/>.

⁹⁶ Segura and Rosenberg, "Mass Kidnappings New Cash Cow for Mexico Drug Gangs."

⁹⁷ *Ibid.*

most of whom were primarily Central Americans citizens, were executed on an isolated ranch in the northern state of Tamaulipas. In April 2011, nearly 183 bodies were unearthed in mass graves near the aforementioned state. The National Human Rights Commission (NHRC) found that in 9% of cases, corrupt police or immigration officials were involved in the kidnappings of immigrants.⁹⁸ On May 12, 2011, Mexico City authorities fired seven regional directors of the country's immigration agency following allegations that its officers in northern Mexico had delivered Central American migrants to kidnapping gangs presumed to be Los Zetas.⁹⁹

K. CASINOS

Another area exploited by Los Zetas is the casino industry. The growing popularity of casinos provides fertile grounds for extortion. An incident revealing the utility of casinos for Los Zetas occurred in August 2011 when it set fire to a casino in the city of Monterrey over unpaid extortion, which killed 52 people.¹⁰⁰ Casinos not only serve for extortion practices, but also offer a means to launder large sums of illicit money as well.¹⁰¹

Recently, Mexico has experienced an upsurge in both legal and illegal casinos. From 2000 to 2011, the number of casinos increased from 123 to approximately 790, several hundred of these establishments operates illegally.¹⁰² For example, in Nuevo Leon, 31 out of the 57 existing casinos do so. The reason for this upsurge in illegal casinos is attributed to the connection of corrupt politicians and federal judges who

⁹⁸ Segura and Rosenberg, "Mass Kidnappings New Cash Cow for Mexico Drug Gangs."

⁹⁹ Ken Ellingwood, "Mexico Fires Officials After Charges of Collusion in Migrants' Kidnappings," *The Bellingham Herald*, May 12, 2011, <http://www.bellinghamherald.com/2011/05/12/2011960/mexico-fires-officials-after-charges.html>.

¹⁰⁰ Tracy Wilkinson, "Suspect Says Mexico Casino Fire Set Over Unpaid Extortion Money," *Los Angeles Times*, August 29, 2011, <http://articles.latimes.com/2011/aug/29/world/la-fg-mexico-casino-arrests-20110830>.

¹⁰¹ Geoffrey Ramsey, "Behind the Battle for Monterrey," *InSight*, June 3, 2011, <http://insightcrime.org/insight-latest-news/item/1026-behind-the-battle-for-monterrey>.

¹⁰² Anonymous, "The Growth of Mexican Casinos and 'Casino Mafias'," *Frontera NorteSur*, July 18, 2011, <http://www.mexidata.info/id3076.html>.

facilitate approval of establishments that operate outside the standing gaming laws.¹⁰³ Even legal casinos are a significant problem in combating organized crime since existing laws and regulations are unable to track the quantity and destination of the money that flows through these institutions. In the end, restricting access to casinos whether legal or illegal will deny Los Zetas a valuable money-laundering asset and potentially reduce its operational capability.

L. COMBATING MONEY LAUNDERING

With all the negative news regarding increased money laundering activities, the Mexican government is attempting to combat it. Recently, on April 28, 2011, the Mexican Congress unanimously approved the Money Laundering Law to fight the Mexican drug cartels. The law's provisions include serious efforts to limit large cash transactions, which makes it illegal to buy real estate with cash, and restrict the purchase of vehicles, boats, airplanes and luxury goods to 200,000 pesos (\$17.3K) in cash. Violators can be sentenced from five to 15 years in prison and fined up to 4 million pesos (\$308K). As a result, it directs the attorney general's office to create a special unit to monitor money-laundering activities and deliver an annual report to the Mexican Congress.¹⁰⁴

M. KINGPIN ACT

Historically, economic sanctions have been the primary weapon to target the financial networks of drug trafficking organizations. Starting first in Colombia and then following the evolution of the narcotics industry to Mexico and beyond, the Treasury Department, through the Office of Foreign Assets Control (OFAC), has systematically

¹⁰³ Anonymous, "The Growth of Mexican Casinos and 'Casino Mafias'."

¹⁰⁴ Anonymous, "Mexico's Money Laundering Reaches USD 10 Billion a Year," *Anti Money Laundering Blog*, February 11, 2011, <http://anti-money-laundering.offshore-journals.com/>.

targeted individuals and entities associated with some of the largest and most dangerous drug cartels operating in South America and Mexico, including, among others, Los Zetas.¹⁰⁵

The Kingpin Act is based on an earlier strategy used against Colombian drug cartels in the mid-1990s. The act was modified and enacted in 1999 to target the financial assets of drug trafficking organizations, including several Mexican drug cartels. Ultimately, the intent of the United States is to disrupt the flow of illicit revenue from reaching the hands of drug cartels that, in turn, use these resources to strengthen and expand their criminal operations. The United States has achieved some success in gaining the cooperation of foreign governments in the effort of freezing financial assets of drug cartels. However, organizations like Los Zetas employ innovative means to bypass the risk of interdiction posed by law enforcement entities. Although this initiative is a step in the right direction toward denying international drug lords financial resources, a more concerted effort is required to increase the intended effect that the Kingpin Act was designed to accomplish. To supplement this act, an executive order was signed that placed economic sanctions on four crime groups, to include Los Zetas. The order gives the U.S. Treasury Department the authority to seize money flowing through the United States traceable to members of foreign organized crime groups. It also prohibits U.S. citizens from involvement in property or financial transactions with the groups.¹⁰⁶

N. CONCLUSION

Since the advent of President Calderon's administration, both Mexico and the United States have made a concerted effort to counter illicit drug operations on both sides of the border. Although the current effort to counter illegal proceeds of Los Zetas has delivered significant setbacks to this criminal organization, it still has access to a

¹⁰⁵ Anonymous, "Testimony by Assistant Secretary for Terrorist Financing Daniel L. Glaser Before The House Committee on Foreign Affairs," *The Cypress Times*, October 13, 2011, http://www.thecypresstimes.com/article/News/National_News/TESTIMONY_BY_ASSISTANT_SECRETARY_FOR_TERRORIST_FINANCING_DANIEL_L_GLASER_BEFORE_THE_HOUSE_COMMITTEE_ON_FOREIGN_AFFAIRS/51678.

¹⁰⁶ Anonymous, "Organized Crime a National Security Risk for U.S. Markets," *iStockAnalyst*, August 4, 2011, <http://www.istockanalyst.com/business/news/5339260/organized-crime-a-national-security-risk-for-u-s-markets>.

significant amount of financial resources. Los Zetas has adapted to the aggressive counter-drug strategy by seeking other means to generate revenue while maintaining a strong foothold within the illegal drug business in Mexico. Moreover, its resources enable Los Zetas to support the necessary operational requirements to achieve its goals. Although the counter-money smuggling efforts put forth by both Mexico and the United States are a step in the right direction, they require further improvement if the intent is to deny Los Zetas one of its most precious resources, money. Nevertheless, to disrupt a dynamic criminal organization like Los Zetas, much more than an understanding of its finances is needed. It is also crucial to examine its operational space. This topic is discussed in the next chapter.

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V. GEOSPATIAL INFRASTRUCTURE: OPERATIONAL SPACE

A. INTRODUCTION

The previous chapters highlighted how relevant the control of territory is to Los Zetas. The nature and geographic distribution of resources play crucial roles in shaping these networks, and therefore, their conflicts.¹⁰⁷ To understand this organization further, it is now important to illuminate its operational terrain and key locations. To construct a graphic representation of Los Zetas' operational environment, the research draws from spatial and temporal data. A wide range of sources can provide the necessary data to construct a map. Nevertheless, data research and map production requires time to project accurate information. Unfortunately, the rise of violence against media outlets has created an information gap on reporting criminal activity.¹⁰⁸ One of the challenges in this study is the verification of sources and the information obtained to construct the map data. For the purpose of this research, the geographical analysis on Los Zetas concentrated solely on its operations in Mexico.

Geospatial information can provide an important platform to display significant geographical activities in an operational environment.¹⁰⁹ The fusion of geospatial information with temporal criminal activity enhances the overall operational picture of Los Zetas to construct a practical disruption strategy. The data used herein was extracted from a multitude of journals, newspaper articles, and blogs from the Internet. The information included security operations against and criminal acts by Los Zetas. Whenever possible, the information was compared and corroborated with other analytical sources.

¹⁰⁷ P. Le Billon, "The Political Ecology of War: Natural Resources and Armed Conflicts," <http://www.geog.ubc.ca/~lebillon/ecowar.pdf>.

¹⁰⁸ "Mexican Social Media Boom Draws Drug Cartel Attacks," *Reuters*, September 27, 2011, <http://www.reuters.com/article/2011/09/27/us-mexico-drugs-idUSTRE78Q6H220110927>.

¹⁰⁹ "FM-3-24 CounterInsurgency," *Headquarters of the Department of the Army*, December 2006, B-1.

The methodology consisted of coding relevant information into the Palantir government software, which facilitated the mapping of locations and events through the application of ArcGIS. ArcGIS is a system for creating and using base maps courtesy of ESRI, compiling geographic data, analyzing mapped information, transferring other maps and geographic information from a range of applications, and managing geographic information in a database.¹¹⁰ Unfortunately, not all reports contained precise locations of criminal activities; whenever this occurred, the coordinates to the nearest town were mapped.

B. PATTERN ANALYSIS

According to the authors' analysis, several important features are revealed from the study of Los Zetas' thematic map in Figure 3. Los Zetas' area of operations encompasses most of Mexico's eastern coastal line. The presence of Los Zetas is felt in the following states of Mexico: Tamaulipas, Nuevo Leon, Coahuila, Veracruz, Tabasco, Campeche, Yucatán, Quintana Roo, San Luis Potosí, Chiapas, Puebla, Tlaxcala, Hidalgo, Querétaro, Zacatecas, Durango, Guerrero, Oaxaca, Guanajuato, Aguascalientes, Mexico City, and Michoacán. The primary stronghold for Los Zetas consists of Nuevo Laredo, followed by Veracruz City. Nuevo Laredo is deemed as the most prized plaza in Mexico as it provides easy access into the United States border.¹¹¹ Figure 3 shows major roadways and railways; to note, wherever there are railways, major roadways parallel.

¹¹⁰ ESRI, <http://www.esri.com/software/arcgis/arcgis-for-desktop/index.html>.

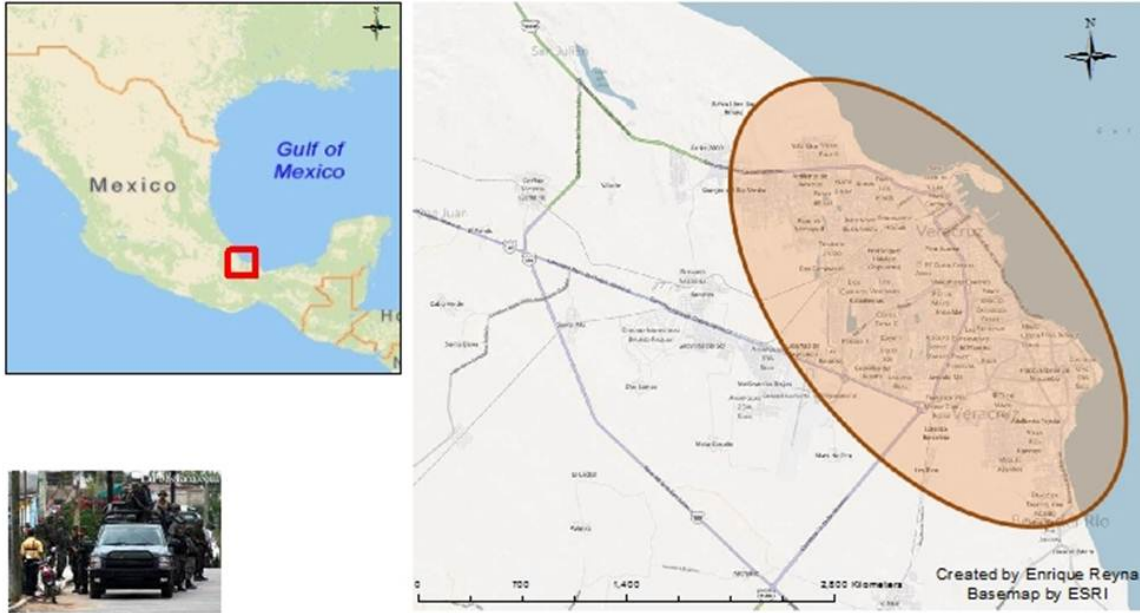
¹¹¹ Vulliamy, *Amexica: War Along the Borderline*. 31.



Figure 3. Roadmap of Mexico

Another important location for Los Zetas is Veracruz City (Figure 4). This location has one of the largest maritime ports in Mexico and facilitates the entry of narcotics into the country.¹¹² Nevertheless, some exceptions exist along the eastern coastal line where Zetas' presence is limited or nonexistent. These areas are dominated by the CDG that has managed to maintain control of areas in Reynosa and Tampico (Figure 5).

¹¹² Ken Ellingwood, "Mexico Under Siege: 14 Killed in Army Raid in Mexico's Veracruz State," *Los Angeles Times*, January 14, 2011, <http://articles.latimes.com/2011/jan/14/world/la-fg-mexico-veracruz-2011011514>.



Unclassified: All information derived from open source Data

Figure 4. Veracruz City



Figure 5. CDG Contested Areas

Los Zetas contested areas with rival cartels consist of the states of Zacatecas, Tamaulipas, and Nuevo Leon. Zacatecas is centrally located in Mexico and contains a hub of road networks that facilitate expedient movement north to south. Most of the violence at this location is attributed to the ongoing turf battles between the Sinaloa cartel and Los Zetas. Another area of contention is in sectors of Tamaulipas (Frontera Chica and San Fernando), Nuevo Leon (Monterrey), and Coahuila (Saltillo) where Los Zetas fight for turf control against the CDG. The state of Tamaulipas is extremely valuable to the CDG as it has access to the sea and is in close proximity to the U.S. border. Surprisingly, with the aid of the Sinaloa cartel, CDG has defended this area well from Los Zeta control.¹¹³

Conducting country-level analysis proves to be simpler than analyzing specific areas. Access to country level spatial data is easily available through an array of media channels. Nevertheless, to grasp the operational patterns of Los Zetas fully, it is of value to study specific areas of operations and focus on key pieces of terrain. Due to the limited scope of this study, the authors have focused their analysis on Falcon Lake, Frontera Chica, San Fernando, Nuevo Laredo, Monterrey, and Saltillo.

C. FALCON LAKE

Falcon Lake's (Figure 6) geographical proximity between the U.S. border and Nuevo Laredo makes it a valuable piece of terrain for Los Zetas. Historically, Los Zetas used Falcon Lake to traffic illegal drugs into the United States. Incidentally, it has also been a location of increased criminal activities.¹¹⁴ This segment of the chapter analyzes Los Zetas' activities in Falcon Lake from April 2010 to August 2011 and is intended to identify operational patterns to reveal its vulnerabilities. By using geospatial and temporal analysis, the authors seek to illuminate specific operational points on the ground, and trends over time based on the reported incidents. Ultimately, these findings will contribute to the overall disruption strategy against Los Zetas.

¹¹³ Samuel Logan and John P. Sullivan, "Violence in Mexico: A Bloody Reshuffling of Drug Cartels," April 12, 2010, <http://mexidata.info/id2620.html>.

¹¹⁴ Sergio Chapa, "Gunmen, Marine Killed in Falcon Lake Island Shootout," May 9, 2011, <http://www.valleycentral.com/news/story.aspx?list=195030&id=615496#.Toegiezi6uI>.

Falcon Lake is unique in that it shares a border with both the United States and Mexico. It also provides access to the only portion of the Mexican-U.S. border not complete desert or mountainous range.¹¹⁵ Additionally, it is conveniently located in a primary operational hub consisting of a strip of border towns called Frontera Chica (Figure 8). Los Zetas maintains complete control of this area and is dependent on the lake as a primary smuggling corridor for several illicit activities.¹¹⁶

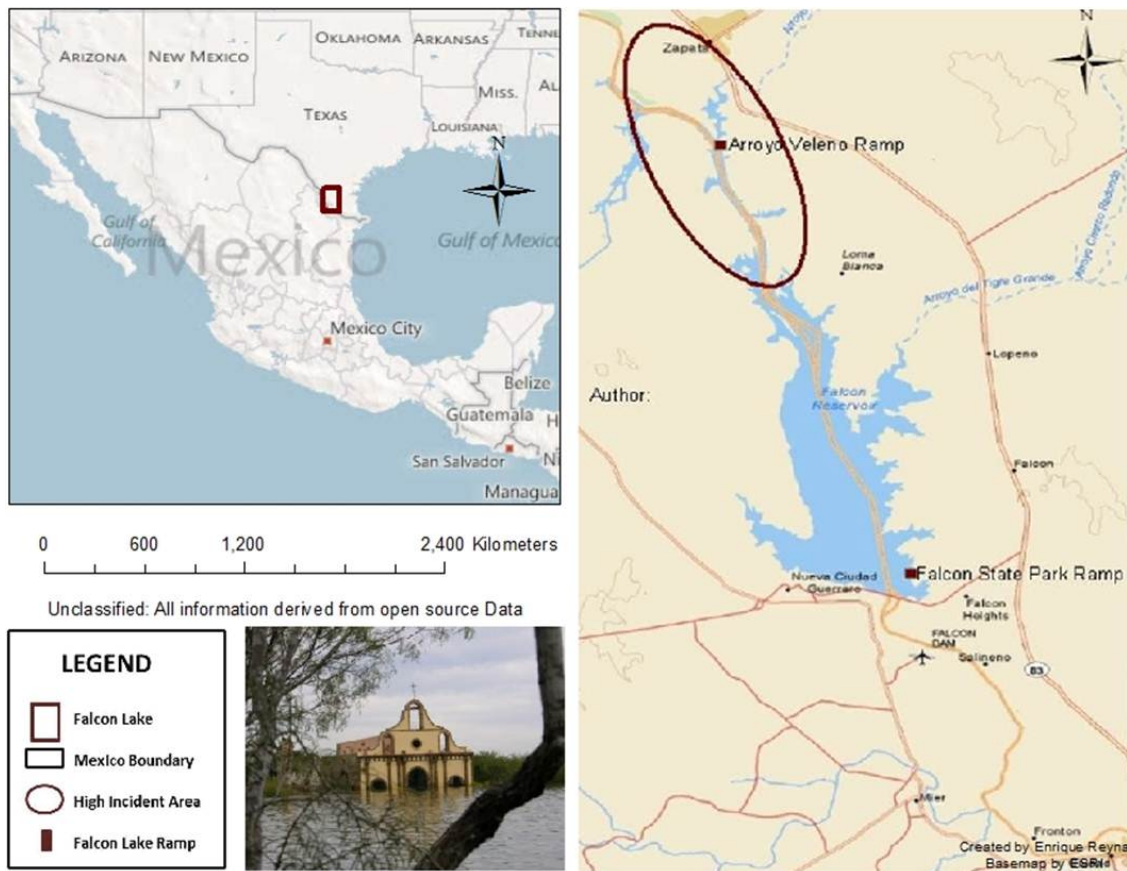


Figure 6. Falcon Lake Boundary

¹¹⁵ “Intergovernmental Panel on Climate Changes,” *Working Group II: Impacts, Adaptation and Vulnerability, Chapter 15, North America*, <http://ipcc.ch/ipccreports/tar/wg2/index.php?idp=589>.

¹¹⁶ William Booth, “Mexican Pirates Attack American Fishermen on Falcon Lake, Which Straddles Border,” *Washington Post*, May 30, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/05/29/AR2010052903707.html>.

D. GENERAL DESCRIPTION

Falcon Lake is located at 26° 52' 21" North, 99° 15' 18" West and has an estimated size of about 84,000 acres. Its dimensions are approximately 40 miles in length by four miles in width. Its widest measurements are at the southern portion of the lake near the dam.¹¹⁷ The narrowest dimension is located near its northern border near Arroyo Salado. The international boundary line is comprised of a series of numbered markers running along its north-south axis along the middle of the lake.¹¹⁸ Small vessels, go-fast boats, bass boats, and other types of maritime platforms navigate Falcon Lake. Two main boat ramps are located at Arroyo Veleno in the northeast and Falcon State park vicinity of the dam of Falcon Lake. These two boat ramps accommodate all types of boats and are open year round.¹¹⁹ Roadways surrounding the lake are highway 83 on the U.S. side and highway 2 in Mexico. Several secondary roads dissect the shoreline and provide an expedient link to the main highways near the lake.¹²⁰ During periods of increased precipitation in the area, the water levels rise and several other ramps in the nearby camping sites are used as well. Surprisingly, boat permits are no longer required to transit the lake. The rule of thumb for lake navigation is that boats can cross international boundaries for fishing purposes as long as no contact is made with other boaters or land.¹²¹ On one hand, Falcon Lake maintains the recreational appeal to attract tourism, and on the other, criminal groups, such as Los Zetas, exploit its easy access into the United States to support its illicit activities.

¹¹⁷ "Falcon International Reservoir," *Texas Parks and Wildlife*, <http://www.tpwd.state.tx.us/fishboat/fish/recreational/lakes/falcon/>.

¹¹⁸ Jessie Degollado, "Search for Shooting Victim Stalled on Falcon Lake," <http://www.ksat.com/news/25243886/detail.html>.

¹¹⁹ "Falcon International Reservoir: Public Access Facilities," *Texas Parks and Wildlife*, <http://www.tpwd.state.tx.us/fishboat/fish/recreational/lakes/falcon/access.phtml>.

¹²⁰ *Ibid.*

¹²¹ Angela Kocherga, "U.S. Man Fishing in Mexico Says He Escaped Gunfire on Falcon Lake," August 26, 2011, <http://www.kens5.com/community/blogs/border-blog/US-man-fishing-in-Mexico-says-he-escaped-gunfire-on-Falcon--128491563.html>.

1. Significant Activities (2010–2011)

In the last two years, significant criminal activity (Figure 7) conducted at Falcon Lake reinforces its importance. During the months of April and May of 2010, multiple incidents of extortion were reported to the U.S. authorities. The incidents consisted of groups of 4–5 men dressed in military uniform, armed with assault rifles and equipped with communications gear that extorted and robbed U.S. boaters near the Old Guerrero church in Mexico.¹²² In June 2010, U.S. law enforcement and federal agents received information that Los Zetas intended to blow the dam at Falcon Lake. Although the reliability of this information was questionable, law enforcement agents heightened the level of security near the dam.¹²³ The authors estimate that for Los Zetas to attack the dam, it would require a substantial amount of resources, and it is unlikely that an operation of this magnitude will occur. Nevertheless, the authors assume that generating rumors and bits of information alluding to attacks on Falcon Lake’s dam is advantageous to Los Zetas as it provokes a shifting of security resources within the lake; thereby, making other areas more vulnerable and facilitating smuggling operations.

¹²² Booth, “Mexican Pirates Attack American Fishermen on Falcon Lake, Which Straddles Border.”

¹²³ Dane Schiller and James Pinkerton, “Agents Feared Mexican Drug Cartel Attack on Border Dam,” *Houston Chronicle*, <http://www.chron.com/news/houston-texas/article/Agents-feared-Mexican-drug-cartel-attack-on-1617694.php>.

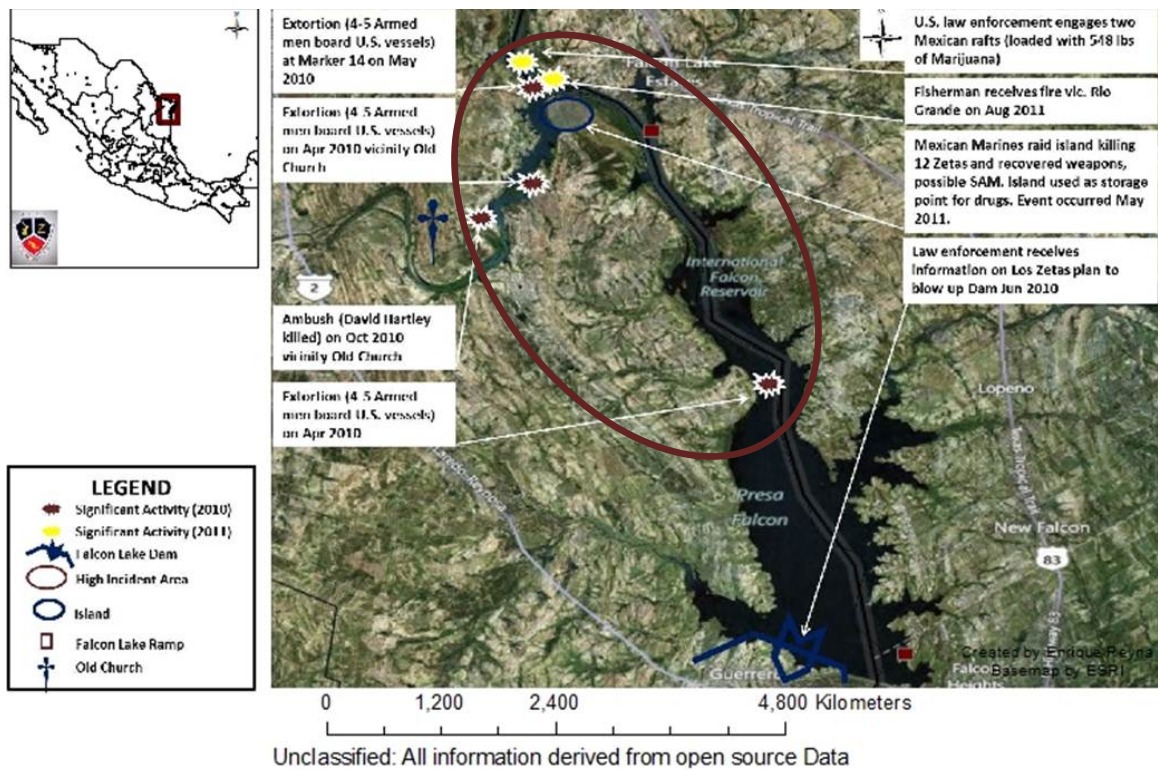


Figure 7. Significant Activities (2010–2011)

Later that same year, in September 2010, an American citizen was shot and killed on the outskirts of the lake; his remains were never recovered. The killing of David Hartley occurred near the Old Church in Guerrero Viejo, Mexico.¹²⁴ Not much information is known about this incident except that two U.S. citizens crossed into Mexican waters and were spotted by a scouting element of Los Zetas who potentially were protecting a precious cargo in the area. Unfortunately, Los Zetas' immediate response was effective small arms fire, which resulted in the death of one American citizen.

In May 2011, three separate incidents occurred near Salado Island. Two men armed with AK-47s extorted money from three U.S. citizens. It was reported that these individuals were traveling in go-fast boats and well equipped with radios and cell phones.

¹²⁴ Carlin Deguerin Miller, "David Hartley Update: Four Suspects Identified in Falcon Lake Border Shooting," March 1, 2011, http://www.cbsnews.com/8301-504083_162-20037825-504083.html.

This incident occurred near marker seven along the boundary line on the U.S. side.¹²⁵ Two days later, Mexican marines successfully raided a Los Zetas' camp located on an island inside the lake (Salado Island); the confrontation resulted in 12 Zeta members killed.¹²⁶ Salado Island appeared to be a rendezvous point for Los Zetas operatives to store drugs before crossing into the United States. Additionally, the Mexican Marines captured 19 assault rifles (AK 47s and AR-15s), bulletproof vests, ammunition, 1 x .50 cal. Barrett and what appeared to be a shoulder fire surface to air missile (SAM).¹²⁷ In the same month, U.S. law enforcement agents engaged two rafts loaded with 548 pounds of marijuana. They chased the drug traffickers' boats and forced the smugglers to abandon the shipment on the Mexican side of the border. The exact location of this event was not reported.¹²⁸ On another incident, two armed men with assault rifles boarded and extorted money from U.S. vessels. The location of this incident was reported in the vicinity north of Salado Island near the ruins.¹²⁹

During the month of August 2011, a U.S. citizen on Mexican waters received fire from across the border.¹³⁰ Although no one was injured, it highlights the potential dangers when on the lake. Los Zetas capitalizes on the use of this terrain and existing structures to facilitate the conduct of the transshipment of illegal drugs. They routinely use coves along the lake to screen its operations. A common defensive practice by Los Zetas is to place scouts on top of three-story buildings to provide early warning on

¹²⁵ Denise Blaz and Lorraine Rodriguez, "Lanzan advertencia sobre Lago Falcón Comerciantes de Zapata dicen eventos siguen en puerta," *Zapata Times*, n.d., <http://www.thezapatatimes.com/zfrontera1.php>.

¹²⁶ "Mexico Navy: 12 Zetas Gang Members Killed in Falcon Lake Shootout," *CNN.com*, May 9, 2011, <http://news.blogs.cnn.com/2011/05/09/mexico-navy-12-zetas-gang-members-killed-in-falcon-lake-shootout/>.

¹²⁷ *Ibid.*

¹²⁸ "Border Security and Law Enforcement Reports," *ProtectYourTexasBorder.com*, <http://www.protectyourtexasborder.com/News/WeeklyLawEnforcementUpdate/Archive/May132011.aspx>.

¹²⁹ "Falcon Lake Incident Briefing on October 7, 2010," *Office of U.S. Congressman Henry Cuellar, Texas 28th District*, <http://images.bimedia.net/documents/20101007-Falcon-Lake-Briefing-Info.pdf>, 13.

¹³⁰ Kocherga, "U.S. Man Fishing in Mexico Says He Escaped Gunfire on Falcon Lake."

imminent law enforcement activity. Additionally, reports indicate the use of lakeside cabins to store illicit merchandise for a short period of time before transshipment by road vehicles.¹³¹

As Figure 7 shows, the spatial distribution of violence is concentrated predominantly near Salado Island. Three significant criminal activities occurred at this location. This piece of key terrain afforded Los Zetas with safe space to store a significant amount of drugs and served as a key transshipment point to avoid authorities. The second most active location is concentrated near the Old Guerrero church, and it is in close proximity to marker fourteen. This marker is the shortest distance within the lake to reach the U.S. border, and it is conveniently located near U.S. highway 83, which provides smugglers access to a high avenue of approach.

2. Pattern Analysis

The typical pattern of Los Zetas operations on the lake consisted of using go-fast boats to outrun authorities while carrying semi-large shipments of drugs. Typically, groups of 4–5 men armed with AK-47s and AR 15s manned these vessels. Los Zetas remains well armed and ready to protect its operations. Weapons systems found in Salado Island included a shoulder fire surface to air missile, a .50 caliber Sniper rifle, and several military grade machine guns. The tactics of extorting U.S. fishermen may be the response of the outer rings of Los Zeta security elements operating on the lake. The shooting incidents may be the responses of the closer rings of security protecting large stockpiles of drugs. Typically, Los Zetas has not intentionally targeted U.S. citizens, but several instances have occurred in which U.S. citizens were killed. Interestingly, even after the murder of David Hartley, Los Zetas has not reduced its operations in Falcon Lake. The lake remains a piece of key terrain that provides great access into the United States for smuggling drugs and generating revenue.

¹³¹ Booth, “Mexican Pirates Attack American Fishermen on Falcon Lake, Which Straddles Border.”

E. FRONTERA CHICA

Frontera Chica (Figure 8) is an extensive strip of border in Tamaulipas; it extends from Nuevo Laredo to Reynosa. Frontera Chica includes the towns of Guerrero, Mier, Aleman, Camargo, and Diaz Ordaz; it is a highly contested drug corridor by members of Los Zetas and CDG. “There have been numerous confirmed reports of deadly gun battles taking place in and around the cities of Nuevo Laredo and Reynosa in the neighboring state of Tamaulipas and in small towns of Nuevo Leon that are north and east of Monterrey,” reports one source.¹³² The violence in this area has been so fierce that residents have fled to more secure places; in 2010 alone, there was an exodus of approximately 95 percent of the population in Ciudad Mier.¹³³ With military clashes against the drug cartels being reported in each border town, the military has won its battles, although it has also suffered casualties, which prompted the GoM to construct three military bases in Tamaulipas; these new bases offer military presence and give the people the confidence to return to their homes.¹³⁴ In Ciudad Mier, where one of the three military bases was built, a sense of normalcy has returned to the population of 7,500.¹³⁵

¹³² Borderland Beat Reporter Buggs, “Tamaulipas Brunt of Violence,” *Borderland Beat*, March 24, 2010, <http://www.borderlandbeat.com/2010/03/tamaulipas-brunt-of-violence.html>.

¹³³ H. Matamoros, *Tamps Blog*, <http://matamorostamps.blogspot.com/2011/09/el-95-de-los-habitantes-de-un-municipio.html>.

¹³⁴ “Tranquilidad en frontera de Tamaulipas por construcción de base militar,” *AnimalPolítico*, September 24, 2011, <http://www.animalpolitico.com/2011/09/tranquilidad-en-frontera-de-tamaulipas-por-construccion-de-base-militar/>.

¹³⁵ “Enfrían soldados zonas calientes,” *El Provenir.mx*, September 1, 2011, http://www.elprovenir.com.mx/notas.asp?nota_id=521907.

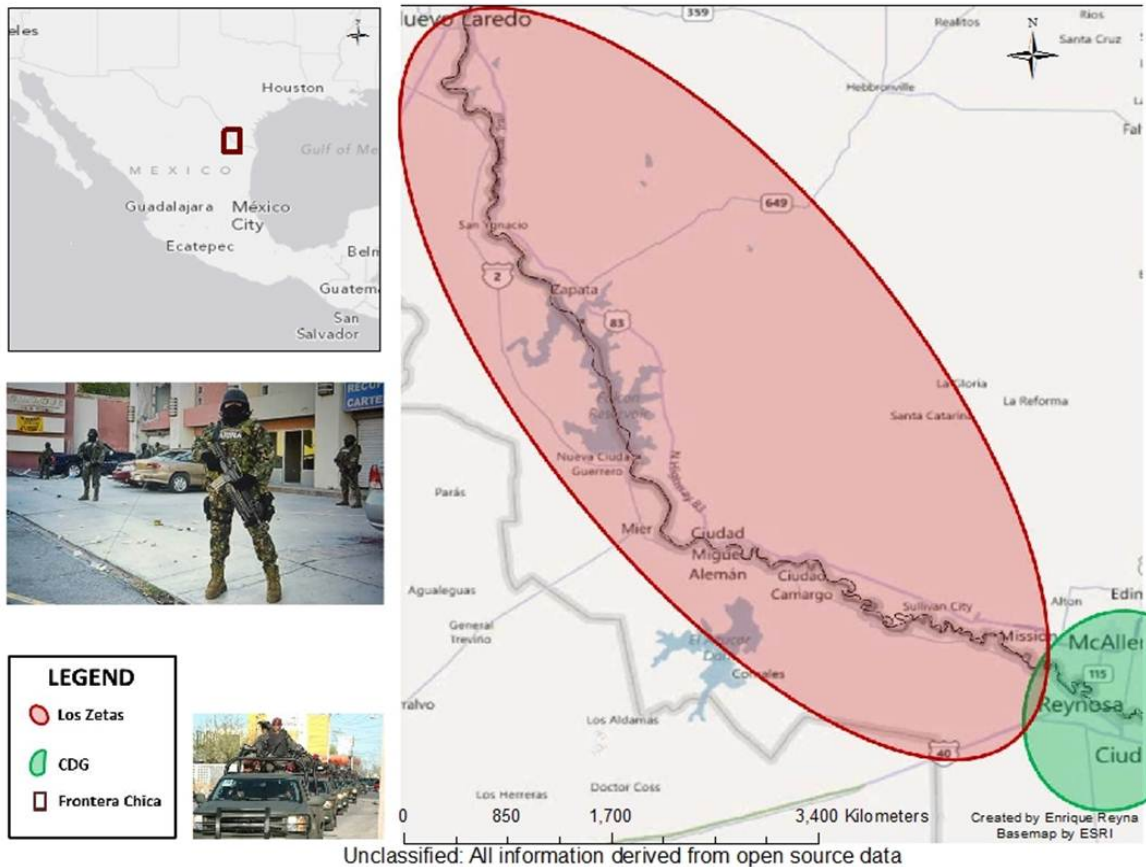


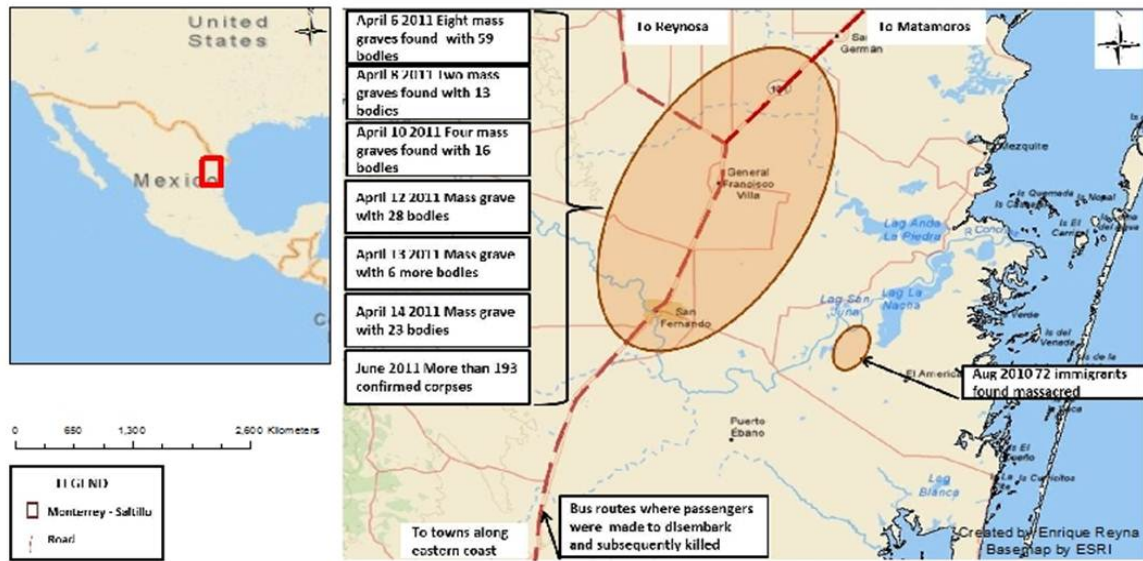
Figure 8. Frontera Chica

F. SAN FERNANDO

The municipality and city of San Fernando (Figure 9) is located in the Mexican state of Tamaulipas. San Fernando is infamous for two of the largest recorded massacres in the drug war. It has also been a place known for bus hijackings; three buses were hijacked in the Las Norias area, just outside San Fernando.¹³⁶ Inside the 200-mile massacre sector around San Fernando, the main fact is obvious, there is widespread relief that a troop surge has occurred and that it has seemed to work, at least for now.¹³⁷

¹³⁶ “Details Emerge in San Fernando Bus Hijackings, Rescue,” *The Monitor*, July 18, 2011, <http://www.themonitor.com/news/rescue-52885-authorities-bus.html>

¹³⁷ Gary Moore, “Ending the Zetas Killing Spree: An Invisible Success Story,” *InSight*, September 22, 2011, <http://www.insightcrime.org/insight-latest-news/item/1604-ending-the-zetas-killing-spree-an-invisible-success-story>.



Unclassified: All information derived from open source data

Figure 9. San Fernando

G. NUEVO LAREDO

Nuevo Laredo (Figure 10) is located along the northeastern border of Mexico.¹³⁸ Since 2003, the levels of violence in Nuevo Laredo escalated above historical records. Turf battles between Los Zetas and the Sinaloa cartel initiated a high wave of violence that undermined state security and rule of law. Halcones,¹³⁹ or lookouts, passively control the major entryways to the city as well.¹⁴⁰ In 2005, Alejandro Dominguez Coello was sworn in as police chief and was immediately assassinated within seven hours after

¹³⁸ “Nuevo Laredo Map-Satellite Images of Nuevo Laredo,” *maplandia.com*, <http://www.maplandia.com/mexico/nuevo-laredo>. The data used to build the Zetas activities in Nuevo Laredo shown in Figure 7 was obtained from the *Nuevolaredoenvivo* blog. This is a website that provides current criminal activity in Mexico and allows users to remain anonymous. The long distance routes in Mexico (map) from <http://www.planetware.com>.

¹³⁹ Halcones (hawks) are individuals ranging from street vendors to youth roaming the streets in Mexico tasked to provide early warning and intelligence to Los Zetas on police, military and rival cartel activities.

¹⁴⁰ “Informacion de Ubicaciones Casas de Seguridad, Halcones, Etc. Nuevo Laredo en Vivo,” *Mapa nuevolarredoenvivo.es.tl*, <http://maps.google.com.mx/maps/ms?hl=es&ie=UTF8&msa=0&msid=209252874409714915321.00049d5a7922484910605&ll=27.464414,-99.542313&spn=0.182778,0.168228&z=12&source=embed>.

of his inauguration.¹⁴¹ Last year, Nuevo Laredo was the site of several violent battles between Los Zetas and the CDG. Ultimately, Nuevo Laredo continues to be a lucrative stronghold for drug smuggling operations and remains in the possession of Los Zetas.¹⁴²



Figure 10. Mexico-U.S. Drug Corridor

Interestingly, the port of entry in Nuevo Laredo, with its close proximity to Texas, offers one of the most active commercial borders in the world. It is estimated that some 5,000 trucks cross north into the United States every day. Coincidentally, on the American side is Laredo, which is considered the largest landlocked port in the United States.¹⁴³ As much as 40 percent of the legal business that enters the United States from Mexico enters

¹⁴¹ *Weak Bilateral Law Enforcement Presence at the U.S.-Mexico Border: Territorial Integrity and Safety Issues for American Citizens* (Washington: U.S. Government Printing Office, 2006), www.gpo.gov/fdsys/pkg/CHRG.../pdf/CHRG-109hhr24608.pdf, 2.

¹⁴² "Mexican Military Battles Los Zetas in Nuevo Laredo," *STRATFOR: Global Intelligence*, August 3, 2011, http://www.stratfor.com/memberships/199965/analysis/20110803-mexican-military-battles-zetas-nuevo-laredo?ip_auth_redirect=1.

¹⁴³ Vulliamy, *Amexica: War Along the Borderline*, 237.

through Nuevo Laredo. Unfortunately, approximately 40 percent of the drugs entering the United States arrive in the same fashion.¹⁴⁴ The opening of the Mexican economy has made Nuevo Laredo the most prized plaza or city square in Mexico.¹⁴⁵

1. Characteristics

Nuevo Laredo's strategic value is not only reflected in its close proximity to the United States. This city also benefits from its extensive connectivity to multiple lines of communications including international maritime ports of entry, borders, railways and major highways.¹⁴⁶ A brief description of the major roadways that intersect Nuevo Laredo reinforces its strategic value for Los Zetas. Connecting Nuevo Laredo to the north with the United States is highway 35 (Figure 11). This avenue of approach provides easy access to the center of the United States and moves further to bridge Mexico with Canada. Running east to west on Nuevo Laredo's northern boundary is highway 2. To the west are a series of secondary roads that provide limited connectivity to surrounding towns and connect to areas dominated by the Sinaloa cartel. To the south is highway 85, which provides the most important connection with the city of Monterrey, which provides access to Mexico's southern border and western states.¹⁴⁷ Ultimately, all these major highways converge in Nuevo Laredo and provide Los Zetas with a central location that supports a continuous flow of illegal drugs and a human smuggling corridor into the United States.

¹⁴⁴ Vulliamy, *Amexica: War Along the Borderline*, 242.

¹⁴⁵ *Ibid.*, 31.

¹⁴⁶ Joan Neuhaus Schaan, "Developing the U.S.-Mexico Border Region. For a Prosperous and Secure Relationship: Security in the U.S.-Mexico Borderlands: The Crisis, the Forces at Work and the Need for Honest Assessment and Action," *Rice University*, March 30, 2009, <http://bakerinstitute.org/publications/LAI-pub-BorderSecNeuhausSchaan-033009.pdf>.

¹⁴⁷ "Northern Mexico Highway Guide: #85 Nuevo Laredo to Monterrey Nuevo Laredo to Monterrey," http://www.milebymile.com/main/Mexico/Northern_Mexico/State_85_1/Mexico_Northern_Mexico_road_map_travel_guides.html.

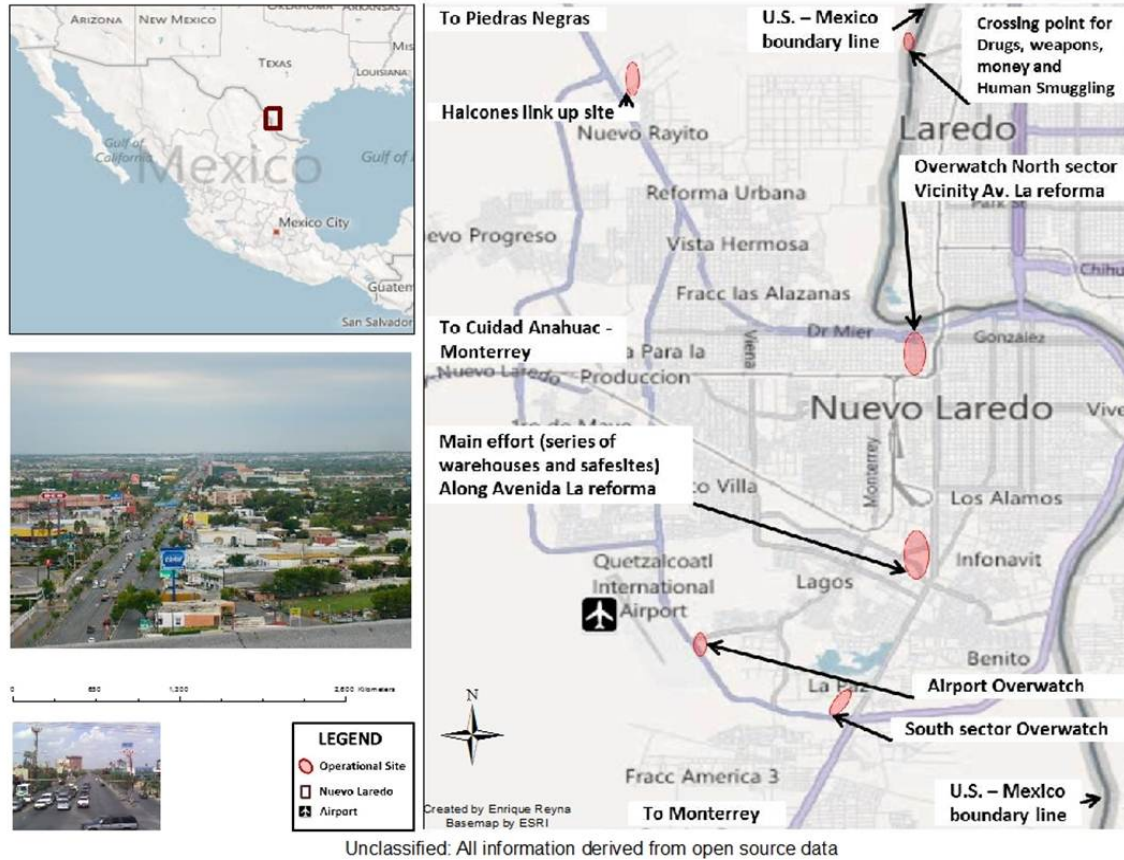


Figure 11. Halcon Activities in Nuevo Laredo

2. Analysis

To illuminate Los Zetas’ footprint further, in Figure 11, a blog reporting is used to construct an overlay of the organization’s support infrastructure in Nuevo Laredo. To the northern and southern boundaries of Nuevo Laredo, Los Zetas maintains a high presence with Halcones who remain vigilant. In the center of town, Los Zetas controls a series of businesses that serve as safe houses and storage facilities for the conduct of drug and human smuggling. To the southwest of the town, several outposts overlook the airport that serve as early warning against any significant military activity. In the eastern vicinity of Nuevo Laredo, one major crossing point exists along the Rio Grande that leads into the

United States and facilitates illegal route access for drugs and human smuggling.¹⁴⁸ Most of the significant activity within the city is concentrated along Avenida La Reforma, which dissects the town from north to south and connects to highway 35.¹⁴⁹ Overall, Los Zetas security mechanism is deployed efficiently within the city to provide a 360-degree security perimeter and allow enough reaction time to respond against a potential attack by security forces or a rival cartel.

H. MONTERREY

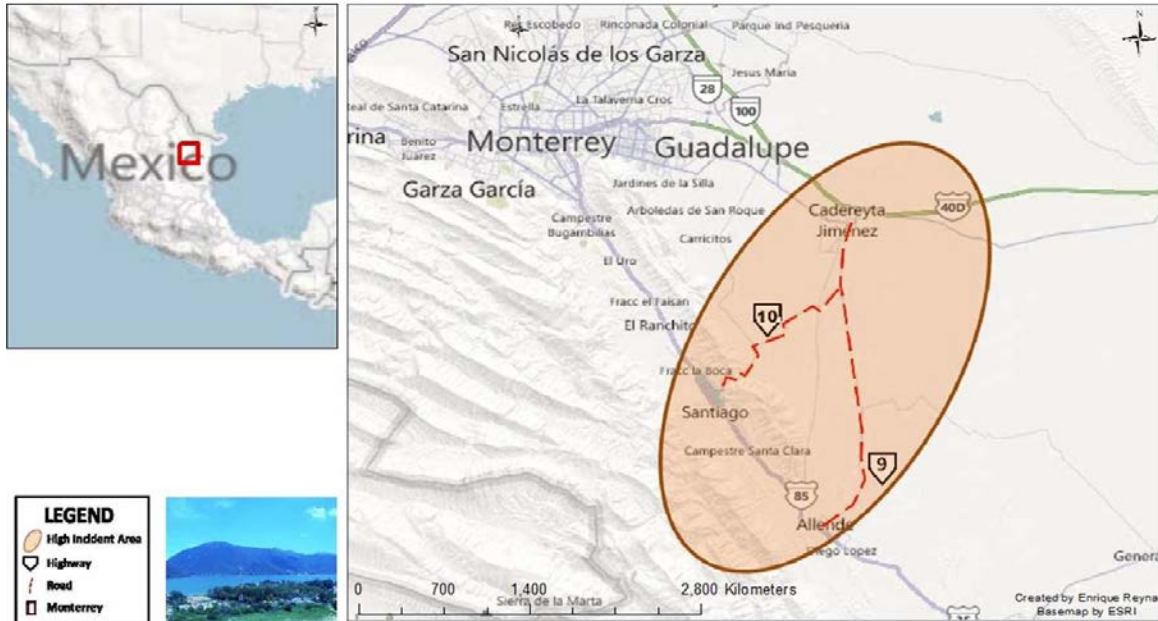
Monterrey (Figure 12) is the third largest city in Mexico and considered a Los Zetas stronghold.¹⁵⁰ However, the CDG has been contesting areas southeast outside Monterrey in an attempt to gain a foothold on this strategic front. Behind el Cerro de La Silla, a mountain considered a national monument and recreational area, runs carretera (highway) Santiago-Cadereyta, a main avenue of approach, which connects highways 85, 10, and 40, respectively, and provides access to main roads in all directions. Monterrey, a major center of commerce, is a strategic hub with a direct avenue of approach to the northern US-Mexico border. It is home to major transnational companies, such as CEMEX (cement company), FEMSA (Coca-Cola), Alfa (petrochemicals, food, telecommunications and auto parts), Axtel (telecommunications), Vitro (glass), Selther (leading mattress and rest systems firm in Latin America), Gruma (food), and Banorte (financial services). The FEMSA Corporation owns a large brewery, the Cervecería Cuauhtémoc Moctezuma that produces the brands Sol, Tecate, Indio, Dos Equis and Carta Blanca.¹⁵¹

¹⁴⁸ “Informacion de Ubicaciones Casas de Seguridad, Halcones, Etc. Nuevo Laredo en Vivo,” Mapa nuevolaredoenvivo.es.tl, <http://maps.google.com.mx/maps/ms?hl=es&ie=UTF8&msa=0&msid=209252874409714915321.00049d5a7922484910605&ll=27.464414,-99.542313&spn=0.182778,0.168228&z=12&source=embed>.

¹⁴⁹ “Informacion de Ubicaciones Casas de Seguridad, Halcones, Etc. Nuevo Laredo en Vivo.

¹⁵⁰ YouTube, “NarcoWar Special Report/Repore Especial de la Narcoguerra. (Mexico)1/3,” July 19, 2011, <http://www.youtube.com/watch?v=nZ2X0jyu0bU>.

¹⁵¹ “State of Nuevo Leon,” *mexicoIT*, http://www.mexico-it.net/index.php?option=com_content&view=article&id=3:nuevo-leon&catid=15:nuevo-leon&Itemid=22.



Unclassified: All information derived from open source Data

Figure 12. Monterrey

Monterrey, Mexico’s business capital is ripe for extortion as cartel money is spent and laundered, and the wealthy choose to look the other way. As the military moves through Monterrey in the attempt to repel Los Zetas, the CDG has moved behind the military sweep to seize an opportunity to gain territory. Los Zetas has a tight grip on Monterrey; gangs are nonexistent, as they have all taken on what seems to be a franchise name, Los Zetas.¹⁵²

I. SALTILLO

Saltillo (Figure 13) is the capital city of the northeastern state of Coahuila with approximately 648,000 inhabitants. It is located about 400 km south of the U.S. state of Texas and 90 km west of Monterrey, Nuevo León. To the south and east, it is surrounded by a series of low mountains called El Cerro del Pueblo. Saltillo sits in the Chihuahuan Desert that continues to the north and west. It boasts an international airport, which services both the United States and Mexico. Major roadways like highways 40, which

¹⁵² Alberto Torres and Francisco Gómez, ““Zetas” y los del Golfo se pelean Monterrey,” July 11, 2011, <http://www.eluniversal.com.mx/notas/778471.html>.

runs west to Torreon 54, which runs generally northeast to Monterrey, and Mexico 57, which runs north to the U.S. border, converge on Saltillo; hence, it is a strategic piece of key terrain. It provides early warning capability for the larger hub (Monterrey), as well as operational reach into the central and western sectors of Mexico. Turf battles for this key drug corridor and control of the plazas have been heating up. Los Zetas has enjoyed unabated control of the plaza until recently, as rival organizations, such as the Sinaloa cartel, have attempted to supplant it.

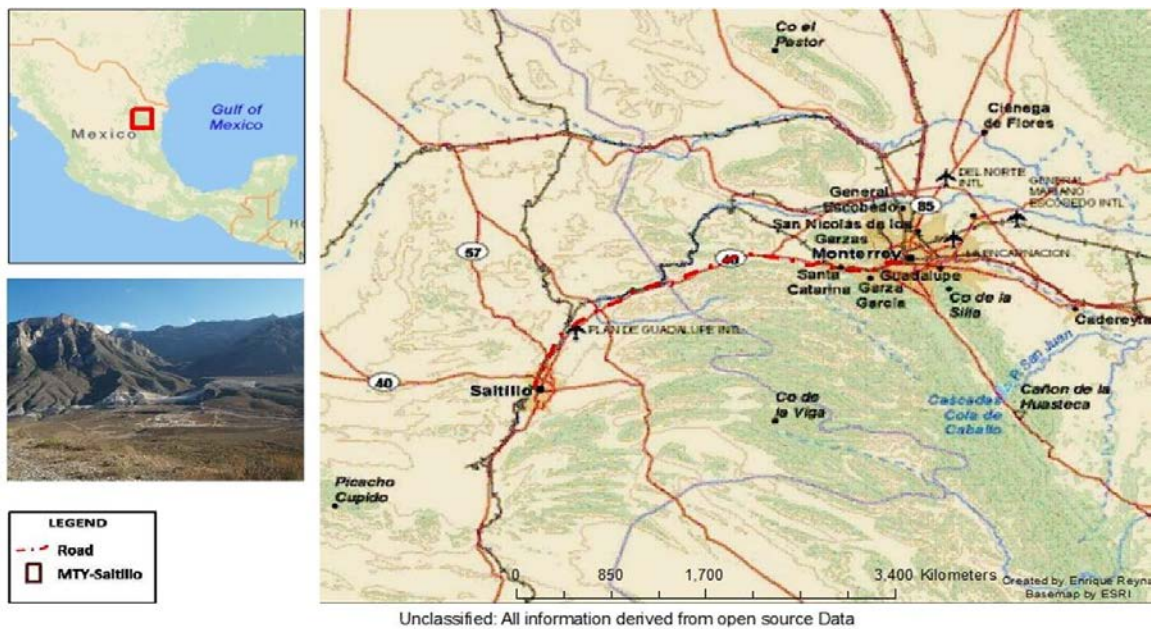


Figure 13. Monterrey-Salttillo Connection

In the attempt to gain the upper hand, cartels set blockades to seal entry and exit points to and from the city to control gun battles and overall movement. In one instance, Saltillo lay deserted after a chaotic morning during which fierce gun battles in the streets erupted between state police and army troops and marauding groups of gunmen, presumably Los Zetas, which left seven dead.¹⁵³ Financiers, drug labs, safe houses and training camps have been found in this point on contention.

¹⁵³ Borderland Beat Reporter Buggs, "Saltillo Under Fire," *Borderland Beat*, March 5, 2011, <http://www.borderlandbeat.com/2011/03/salttillo-under-fire.html>.

J. CONCLUSION

Describing the operational environment of Los Zetas is crucial to understanding the organization's footprint. Key terrain is one of the most important resources for Los Zetas and its exploration through geospatial and temporal analysis can contribute immensely to the development of a disruption strategy. Yet, analyses that go only this far are disappointing; they only offer a limited snapshot of the criminal activities and pattern analysis of the organization. Although a significant amount of open source information describes Los Zetas' operations countrywide, the same is not true for area specific incidents. For example, the analysis of Falcon Lake reinforces the above limitation. Incidents at this location are underreported from the U.S. side and almost nonexistent from the Mexican media. Currently, obstacles to report accurate criminal activity are even more evident in Nuevo Laredo. The recent attacks against journalists reinforce this argument.¹⁵⁴

Unfortunately, such analysis offers limited insight into the methods and tactics of this group, but it serves to reinforce the point made earlier that this criminal entity is adaptive and innovative. In the end, to understand fully how Los Zetas operates, several analytical tools must be used. Failure to dig deeper into these events will only limit the knowledge and understanding of those attempting to devise a practical disruption strategy.

¹⁵⁴ "Watchdog: Attacks on Journalists in Mexico Threaten Press Freedom," *CNNWorld*, September 8, 2010, http://articles.cnn.com/2010-09-08/world/mexico.journalism_1_press-freedom-cpj-crimes?_s=PM:WORLD.

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VI. SOCIAL NETWORK ANALYSIS

A. INTRODUCTION

The intent of this chapter is to analyze Los Zetas as a network using various social network analysis (SNA) metrics (i.e., centrality, and brokerage) that will help identify strategies for disrupting its operations. When attempting to undermine a criminal network, a strategy must be developed that identifies vulnerabilities (e.g., actors) within the network that can serve as targets; SNA can help in this regard. Often, the actors identified using SNA are located in crucial positions within the network (e.g., as central nodes, gatekeepers, or brokers) that connect the network and facilitate the flow of information and other resources across it. This chapter draws on a few of these metrics to identify members of Los Zetas who occupy these important positions. These metrics can then be visualized in a sociogram (i.e., social network diagram) where nodes are the actors and ties are the lines.

Centrality and key player metrics are applicable to the study of criminal organizations, such as Los Zetas, whose organization is similar to the Apache Indians during the Spanish colonial period. Unlike the Aztecs and the Incas, the Apaches were not tied to a fixed location, nor did they have a commodity like gold they exclusively possessed.¹⁵⁵ Like the Apaches, Los Zetas can organize for a particular operation and disperse at a moment's notice without attachment to any man, weapon, or equipment left behind. For this reason, applying the right form of network analysis and understanding what makes each member distinct is critical. Centrality is useful in identifying high-value targets, but analysts should not limit their analysis to using just one centrality or key player measure nor suggest a single strategy but instead should draw on numerous metrics and craft a wide array of strategies, especially when tackling resilient and flexible criminal entities, such as Los Zetas.¹⁵⁶ Indeed, because Los Zetas has a proven record of

¹⁵⁵ Brafman and Beckstrom, *The Starfish and the Spider*, 18.

¹⁵⁶ Nancy Roberts and Sean F. Everton, "Strategies for Combating Dark Networks," *Journal of Social Structure* 12, no. 2 (2011), <http://www.cmu.edu/joss/content/articles/volume12/RobertsEverton.pdf>.

resiliency, flexibility, and fluidity in its network, qualities that stem from the ways in which ties are constantly formed and strengthened or weakened and broken,¹⁵⁷ an aggressive disruption strategy is in order, whose key tactical structure should be a “swarm” capable of a simultaneous, omni-directional attack.¹⁵⁸ Identifying central players is a starting point for unraveling Los Zetas’ organizational structure.¹⁵⁹ With tools, such as Palantir Government, UCINET, and ORA, it is possible to map its organizational structure and then use this knowledge to craft strategies to defeat it.¹⁶⁰

B. DATA

For the analysis of the Los Zetas network, operational ties were used to extract information from open source mediums, such as newspapers, Internet sites, blog sites, books, journals, interrogation depositions, government reports, court documents, and Spanish and English press reports. The strength in open source information is its timeliness, sometimes just hours after the actual event occurred. Its weakness is its content and accuracy; the information gleaned must always be questioned and corroborated to prevent the risk of using misleading information. The authors feel confident that in the end, the data used are accurate and appropriate for analysis. Certainly, the network illustrated herein is a snapshot in time, but given that the data range from early 2000 through August 2011, they should provide a sufficient operational picture of the Los Zetas network.

C. OPERATIONAL TIES

Klerk has argued to gain an understanding of a criminal organization, analysts should attend to social phenomena, such as schools attended, roles played by individuals,

¹⁵⁷ Phil Williams, “Transnational Criminal Networks,” in *Networks and Netwars*, ed. John Arquilla and David Ronfeldt (Santa Monica, CA: RAND, 2001), 67.

¹⁵⁸ This concept was introduced in John Arquilla and David Ronfeldt, *Swarming and the Future of Conflict* (Santa Monica: RAND, 2000). This is how present and future conflicts should be fought; analysts will have to go much deeper than doctrine.

¹⁵⁹ John Arquilla and David F. Ronfeldt, *Networks and Netwars: The Future of Terror, Crime and Militancy*, Issue 1382, (RAND, California: Santa Monica, 2001), 31.

¹⁶⁰ Note that SNA is just a tool amongst many tools and should never be used as a stand-alone means in analysis.

internal communication among actors, and so forth.¹⁶¹ This project uses operational relationships to analyze and suggest counter strategies to dismantle Los Zetas' criminal organization. Initially, the operations relationship data of the 349 actors of the network was coded. Seventy isolates (i.e., actors with no ties) were then removed due to the assumption that the possibility of an isolate having a relationship with the main network was minimal, if not episodic, at best. Thus, it was possible to focus attention on the network's most critical actors and not waste resources on tracking non-essential actors. It is assumed that Los Zetas relies on ties of trust, which represent potential lines of communication, coordination, and control. Furthermore, such ties are presumed to possibly be inactive but can be activated quickly if needed.

D. SOFTWARE TOOLS

The coding work of Los Zetas' relationship network was prepared initially in Palantir Government,¹⁶² a software platform for analyzing, integrating, and visualizing various types of data, including structured, unstructured, relational, temporal, and geospatial data. It also can display, organize, store, and analyze friendly, threat, neutral and clandestine human terrain in a multi-dimensional environment. The data structured in Palantir were then exported to UCINET, a social network analysis program.¹⁶³ While the network drawing program NetDraw is integrated with UCINET, ORA¹⁶⁴ was used to visualize Los Zetas' network. Figure 14 presents a sociogram of the Los Zetas operational network.

¹⁶¹ Peter Klerks, "The Network Paradigm Applied to Criminal Organizations: Theoretical Nitpicking or a Relevant Doctrine for Investigators? Recent Developments in the Netherlands," 1999, 56.

¹⁶² Palantir Government, <http://www.palantirtech.com/government>.

¹⁶³ UCINET, <http://www.analytictech.com/ucinet/>.

¹⁶⁴ Like Palantir Government and UCINET, ORA software is made in the United States and sponsored by the Department of Defense. CASOS, <http://www.casos.cs.cmu.edu/projects/ora/>.

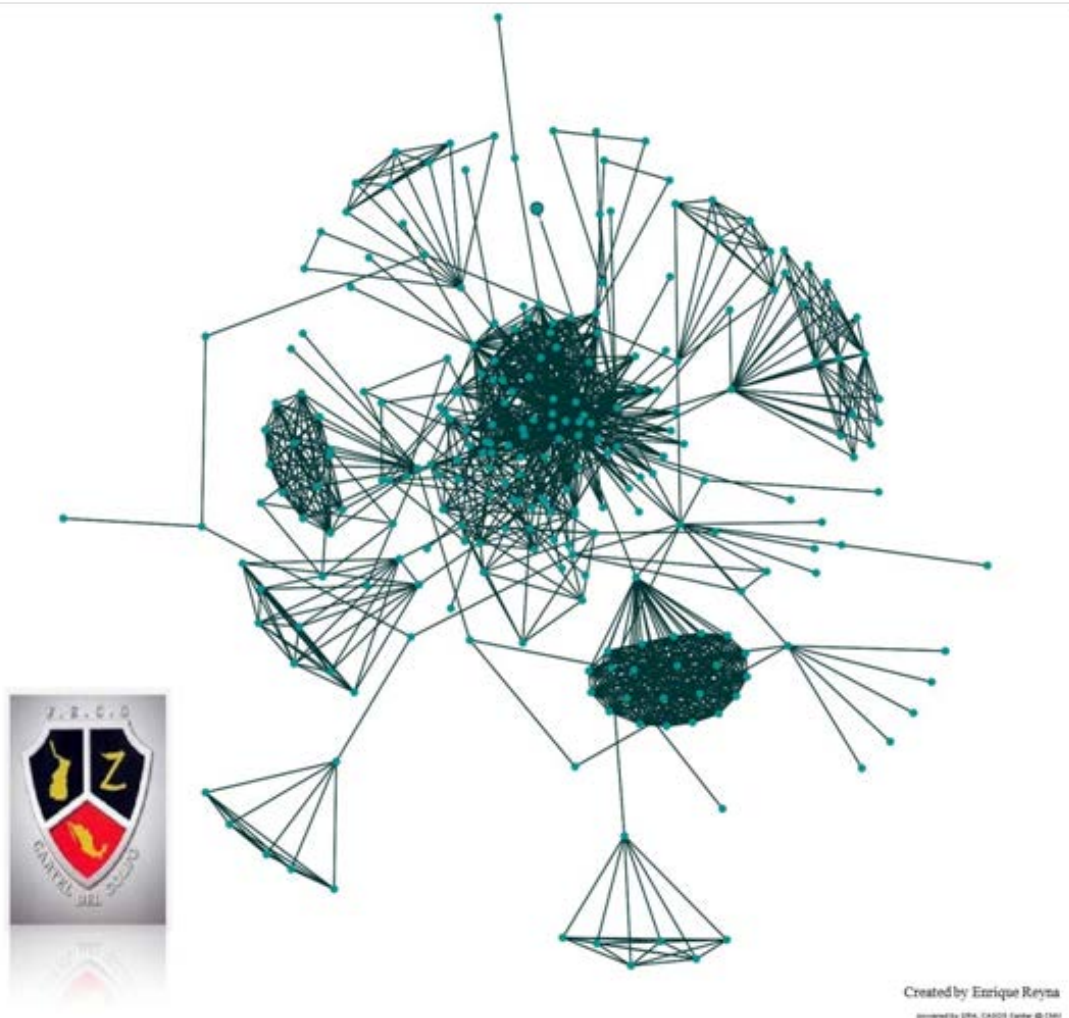


Figure 14. Sociogram of Los Zetas Network

E. CENTRALITY

Actor centrality is one of the oldest concepts in SNA, and is used substantially in the following analysis of Los Zetas. A number of different measures of centrality exists, each with its own assumptions of what constitutes a central actor. For the purposes of this thesis, four types of centrality are utilized: closeness, degree, betweenness, and eigenvector. Each type of centrality is discussed, in turn, as Los Zetas network is analyzed.

1. Closeness Centrality

Closeness centrality assumes that an actor is more central the closer (in terms of path distance) it is, on average, to all other actors in the network, and the higher an actor's closeness score, it could indicate that information reaches an actor with more speed and accuracy than those with lower closeness scores.¹⁶⁵ Table 1 and the sociogram in Figure 15 highlight the top ranked network members in terms of closeness centrality (red nodes in the sociogram).

Rank	Node	ARD (closeness)
1	Heriberto Lazcano	0.336685896
2	Jesus Enrique Rejon-Aguilar	0.277873725
3	Carlos Vera Calva	0.268151462
4	Galindo Mellado Cruz	0.265277922
5	Omar Mendez	0.261446476
6	Raul Trejo Benavides	0.261446476
7	Gonzalo Geresano Escribano	0.246120736
8	Raul Lucio Hernandez Lechuga	0.245785519
9	Esvin Leonel Batres Hernandez	0.248898536
10	Miguel Angel Trevino Morales	0.250478983

Table 1. Closeness Centrality Top Ten

¹⁶⁵ Sean F. Everton, *Tracking, Destabilizing, and Disrupting Dark Networks with Social Network Analysis*, DA4600 course text (Monterey, CA: Department of Defense Analysis, Naval Postgraduate School, 2010); Sean Everton, *Tracking, Destabilizing and Disrupting Dark Networks with Social Network Analysis*, electronic workbook, version 1.05 (Monterey, CA: Naval Postgraduate School), 12.

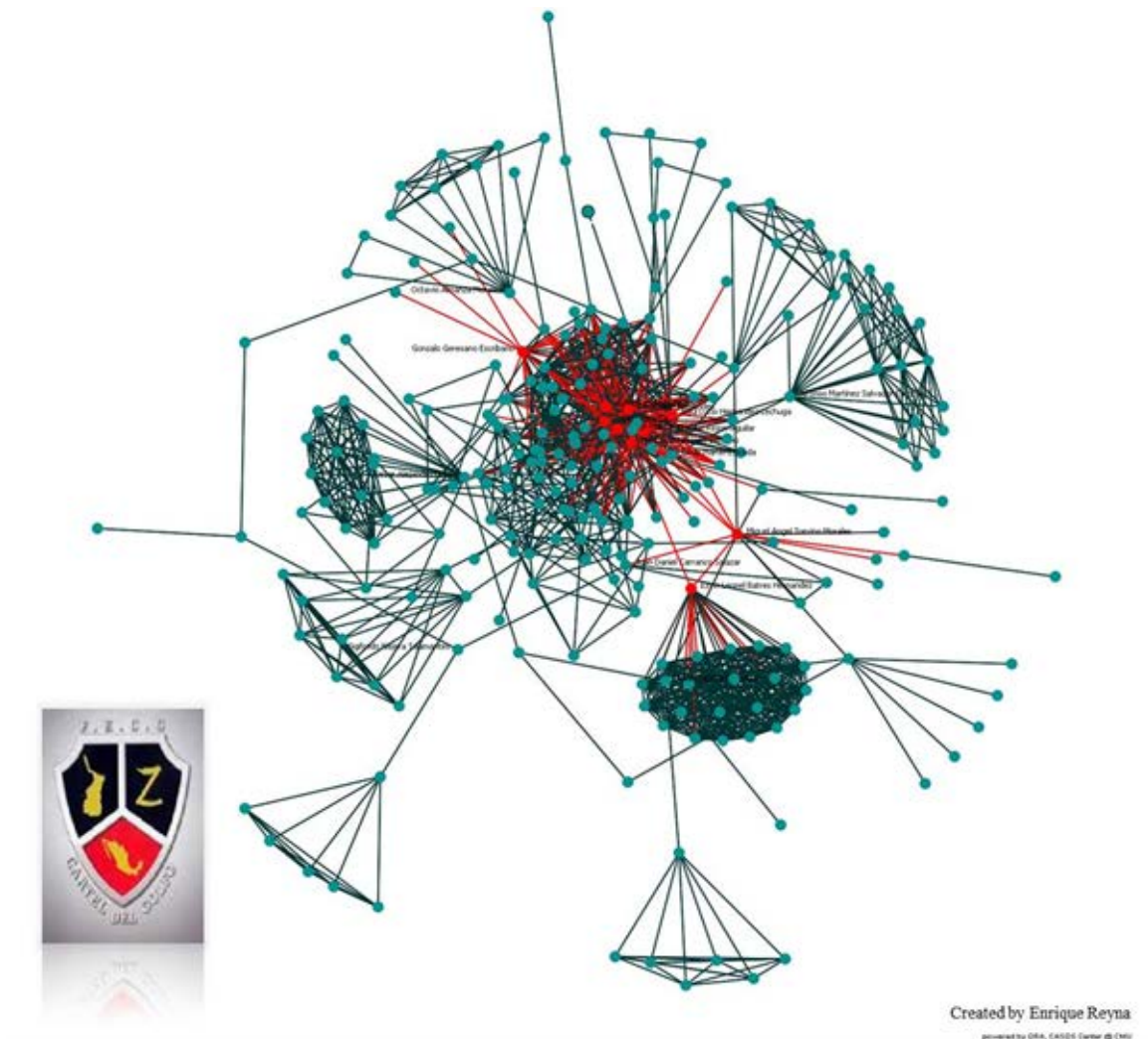


Figure 15. Closeness Centrality Top Ten

Note that Heriberto Lazcano (the current leader of Los Zetas) is the most central, which suggests he is deeply involved with the coordination of Los Zetas' activities. Second is Miguel Angel Trevino Morales, one of the group's top leaders. Carlos Vera Calva and Galindo Mellado Cruz rank third and fourth, respectively, which is not surprising since they are original Zetas. They are still active and at large. Omar Mendez (captured) and Raul Trejo Benavides (deceased), both original Zetas, score the same in terms of closeness centrality and are of little concern since they are not currently active in the network. The remaining actors are of potential interest, however, and in particular, Miguel Angel Trevino Morales, who is second in command.

2. Degree Centrality

Table 2 and Figure 16 indicate the highest ranked members in terms of degree centrality, which is simply the count of the number of an actor's ties.¹⁶⁶ As with the previous sociogram, the red nodes identify those members with the highest scores. Not surprisingly, they are all original Zetas and are all located in the same cluster.

Rank	Node	Degree
1	Heriberto Lazcano	0.169540226
2	Jesus Enrique Rejon-Aguilar	0.135057464
3	Carlos Vera Calva	0.129310340
4	Galindo Mellado Cruz	0.123563215
5	Omar Mendez	0.117816091
6	Raul Trejo Benavides	0.117816091
7	Gonzalo Geresano Escribano	0.086206898
8	Luis Reyes Enriquez	0.080459774
9	Raul Lucio Hernandez Lechuga	0.074712642
10	Rogelio Guerra Ramirez	0.074712642

Table 2. Degree Centrality Top Ten

¹⁶⁶ Everton, *Tracking, Destabilizing, and Disrupting Dark Networks with Social Network Analysis*, DA4600 course text.

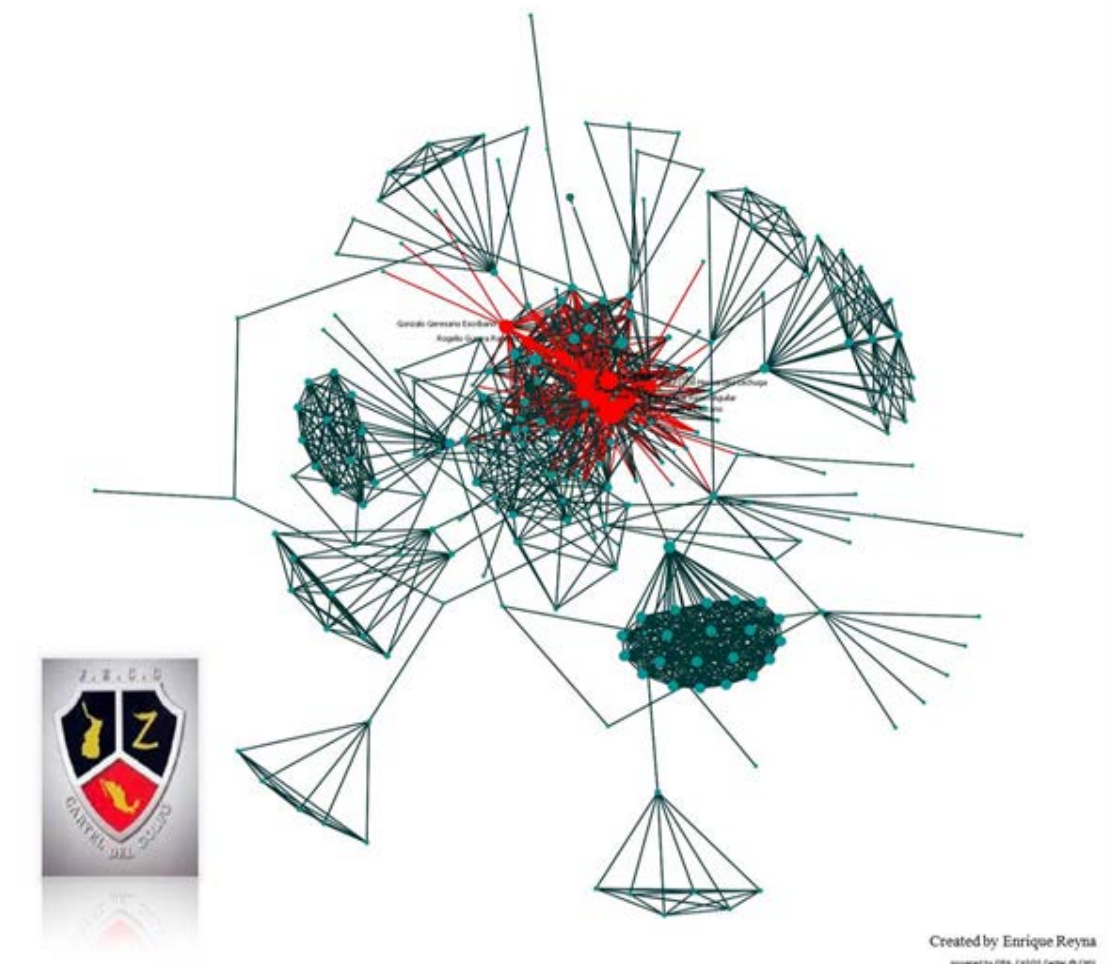


Figure 16. Degree Centrality Top Ten

Once again, Heriberto Lazcano is the most central actor, followed by Jesus Enrique Rejon-Aguilar who is third in command. Interestingly, Miguel Angel Trevino Morales, the second in command, is missing, which may be due to his lack of authority to give orders, or that he is cognizant of his environment and using a proxy to buffer his activities. In any case, his absence in these rankings should be taken seriously but not dismiss him as a central player because he does appear in other rankings. Two sets of actors (Omar Mendez and Raul Trejo Benavides, Raul Lucio Hernandez Lechuga and Rogelio Guerra Ramirez) have identical scores, which suggest that another measure is

needed as a discriminator for target prioritizing.¹⁶⁷ Comparatively, the first seven members in closeness and degree centrality are ranked the same; furthermore, eight of the 10 members are identified in both measures of centrality.

3. Betweenness Centrality

Betweenness centrality assumes that an actor has (potential) power over any two other actors when it lies on the shortest path between them in a given network. It identifies those actors in a position of brokerage to control the flow of resources through the network.¹⁶⁸ As before, in Figure 17, all members of the network are colored dark green except those ranked high in terms of betweenness centrality (listed in Table 3), who are colored red. Unsurprisingly, Heriberto Lazcano is ranked first. He is followed by Esvin Leonel Batres Hernandez, who is currently detained and whose position in the network is somewhat unique. He does not rank high in terms of connections (i.e., he is not ranked in the top 10 in Tables 2 or 4), he is (or was) in a position in terms of brokerage in light of his betweenness centrality score. Alfonso Martinez Salvador Escobedo, Los Zetas regional leader in Tamaulipas, ranks third followed by Oscar Alejandro Duran, who was in charge of delivering payments to Zeta members and reporting on police and the military activities. Interestingly, the last two aforementioned members are not identified in the other three measures of centrality. Both control resources and are in a position of brokerage; Escobedo controls men, weapons, profits, and equipment and Duran traveled throughout the eastern coast of Mexico receiving and delivering payments, as well as reporting on GoM's activities.

¹⁶⁷ As a cautionary note, targeting individuals with same score may lead to inaccurate targeting; corroborating the analysis is essential.

¹⁶⁸ Everton, *Tracking, Destabilizing, and Disrupting Dark Networks with Social Network Analysis*, DA4600 course text.

Rank	Node	Betweenness
1	Heriberto Lazcano	0.207026020
2	Esvin Leonel Batres Hernandez	0.058084071
3	Alfonso Martinez Salvador Escobedo	0.047210906
4	Oscar Alejandro Duran	0.046346903
5	Miguel Angel Trevino Morales	0.064882897
6	Octavio Almanza Morales	0.026955182
7	Omar Martin Estrada	0.036784921
8	Juan Daniel Carranco Salazar	0.027752936
9	Julian Zapata Espinoza	0.025067078
10	Sigifredo Najera Talamantes	0.023783498

Table 3. Betweenness Centrality Top Ten

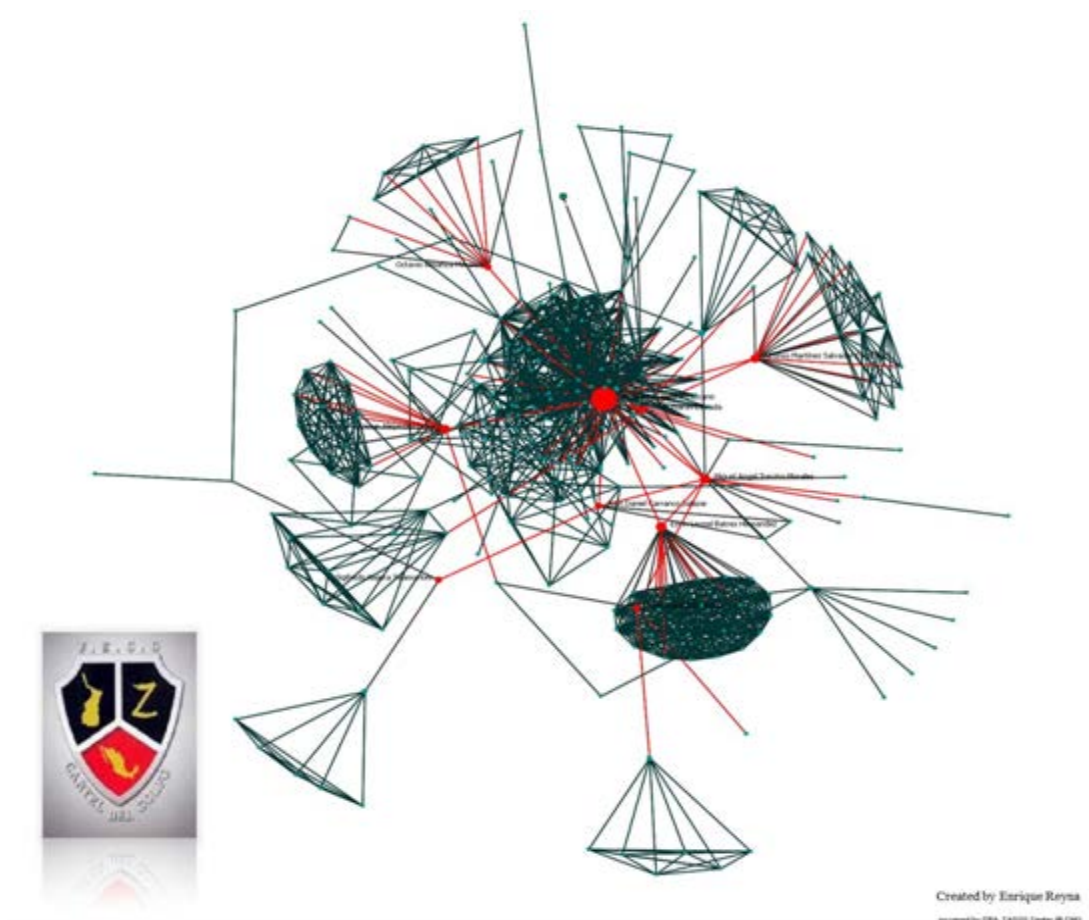


Figure 17. Betweenness Centrality Top Ten

4. Eigenvector Centrality

Eigenvector centrality assumes that ties to highly central actors are more important than ties to peripheral actors, so it weights an actor's summed ties (i.e., its degree centrality) by the centrality of the actors with whom ties exist.¹⁶⁹ Table 4 and Figure 18 present the results of the eigenvector analysis where red nodes indicate the top 10 ranked actors. These actors were all original Zetas so it is no surprise they are highly ranked. The cluster in which they are located also includes original Zetas, including the group's founders, which suggests that this subgroup is united and loyal; moreover, most, if not all, have a military background, which makes this cluster extremely dangerous. In Table 4, the rankings again indicate that Heriberto is the most central followed by the number three in charge of Los Zetas, Jesus Enrique Rejon-Aguilar, who has been captured. Interestingly, Carlos Vera Calva, Galindo Mellado Cruz, Omar Mendez, Raul Trejo Benavides rank third, fourth, fifth, and sixth, respectively, which is not surprising since they are original Zetas. Calva is a military deserter, Cruz specialized in telecommunication and radio intercepts, Omar Mendez is a captured ex-military, and Raul Trejo Benavides, also an ex-military, is deceased. They all rank identical in all measures of centrality except betweenness. It can be assumed they have all cross-trained and have become proficient in each other's skill they possess. Each Zeta is a leader at some level; each is a force-multiplier and lethal.

¹⁶⁹ Everton, *Tracking, Destabilizing, and Disrupting Dark Networks with Social Network Analysis*, DA4600 course text.

Rank	Node	Eigenvector
1	Heriberto Lazcano	0.382304728
2	Jesus Enrique Rejon-Aguilar	0.372123420
3	Carlos Vera Calva	0.369250655
4	Galindo Mellado Cruz	0.362327307
5	Omar Mendez	0.342705578
6	Raul Trejo Benavides	0.342705578
7	Gonzalo Geresano Escribano	0.283981532
8	Luis Reyes Enriquez	0.285999596
9	Rogelio Guerra Ramirez	0.278697699
10	Prisciliano Ibarra Yepis	0.268960655

Table 4. Eigenvector Centrality Top Ten

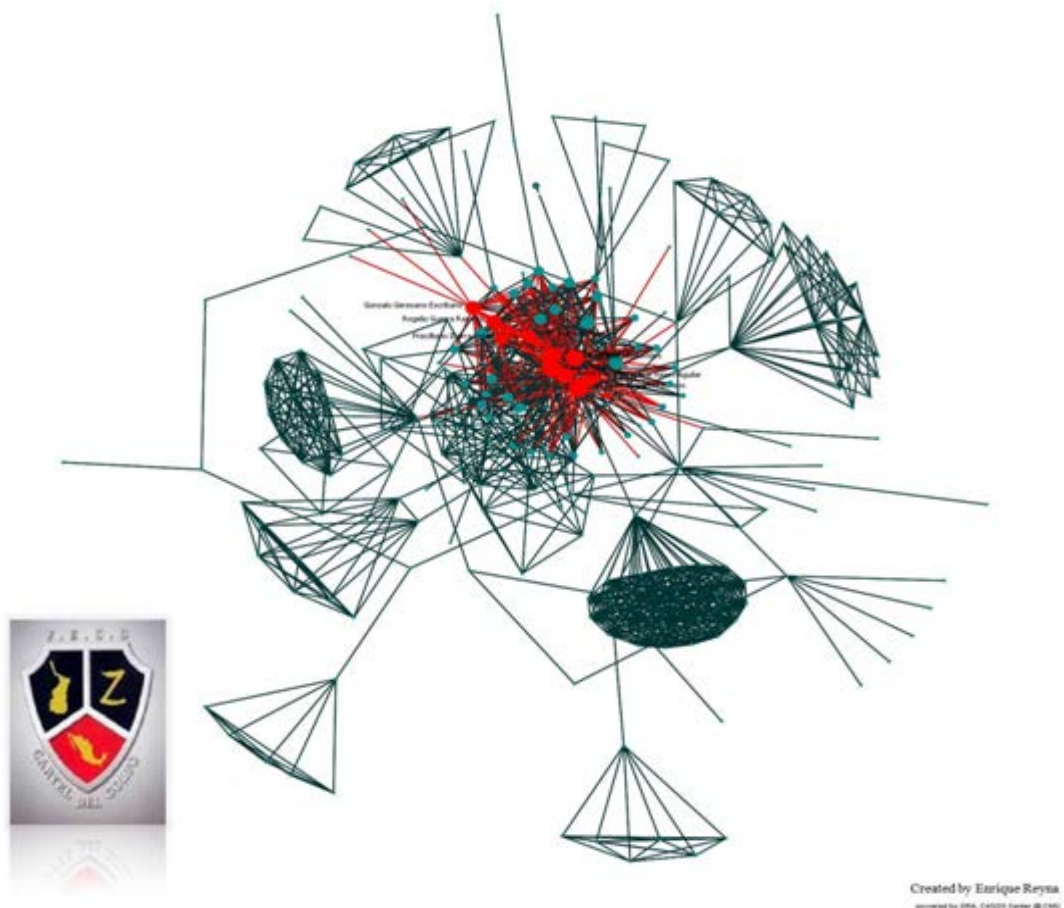


Figure 18. Eigenvector centrality Top Ten

5. Summary

Four centrality measures were used to analyze Los Zetas' network as a backdrop for the development of a disruption strategy. A considerable overlap of those members ranked high in closeness, degree, and eigenvector centrality exists, all of whom are original Zetas. However, a substantial difference occurs in those who scored in terms of betweenness centrality and the other three metrics. Seven actors appear in the betweenness rankings that did not appear in the other rankings. Nevertheless, all are original Zetas.

Unfortunately, centrality metrics do not always completely capture a network's vulnerabilities. For instance, Heriberto Lazcano scores high in all of the centrality measures (see Table 7), but his removal, although critical, would not totally fragment the network. The clusters would still be intact, and Los Zetas would probably continue to operate. Indeed, Los Zetas has lost its top leader before and many of the original Zetas are dead or in prison, but it has continued to live on, an indication of its resiliency. Indeed, available research suggests that targeting the most central actors for removal or isolation is not always the optimal solution.¹⁷⁰

One of the weaknesses of centrality metrics is that it attempts to quantify the structural importance of actors in a network, but not necessarily, which individuals are important for the network as a whole. This weakness could prove problematic if seeking to neutralize members of Los Zetas to disrupt the network's operational ability or to identify optimally positioned Zetas to diffuse (mis)information, attitudes, and behaviors quickly to undermine the network's effectiveness. Fortunately, a set of key player metrics has been developed to address this limitation;¹⁷¹ it is this set of algorithms that is examined next.

¹⁷⁰ Roberts and Everton, "Strategies for Combating Dark Networks," 2011.

¹⁷¹ Stephen P. Borgatti, "Identifying Sets of Key Players in a Social Network," *Computational, Mathematical and Organizational Theory* 12, no. 1 (2006).

F. KEY PLAYER

Stephen Borgatti has developed an algorithm that seeks to identify an optimal *set of actors* whose removal either *disconnects or significantly fragments* the network.¹⁷² Two variations of the algorithm exist. One uses a standard fragmentation measure to gauge how much various sets of actors fragment the network if they are removed from the network. Simply put, a fragmentation score is calculated both prior to and after the removal of each set, and the set that increases the level of fragmentation the most is considered the optimal set. The second is similar to the first except that rather than using the standard fragmentation measure, it uses a distance-weighted measure that identifies the set of actors whose removal most lengthens the average path distance between all pairs of actors in the network. Recognizing that the removal of actors may not always be the best or desired strategy when working with dark networks, Borgatti has developed an additional algorithm that looks “for a set of network nodes that are optimally positioned to quickly diffuse information, attitudes, behaviors or goods and/or quickly receive the same.”¹⁷³ Borgatti also developed two variations of this algorithm. The first simply counts the proportion of distinct actors reached by the set of key actors, while the second weights this calculation by the path distance between the set of key actors and all other actors in the network. For this analysis, the standard (rather than the distance-weighted) algorithms are used. The size of the set is a decision for analysts to make. As discussed in detail below, the authors ultimately asked each algorithm to identify sets of size 10 although sets of various sizes were estimated. Finally, the key player algorithms do not rank members; they simply list the actors as they appear in the network.

Key player sets of size five through 10 members were identified and compared both visually, (see Figures 19 through 30) and in terms of fragmentation metrics. In the end, it was decided to use a set of size 10 (Table 5) because it significantly fragments the network and enough resources in the GoM’s arsenal exists to execute a kill/capture operation of that size. In Figure 19, a group size of five is identified within the network,

¹⁷² Borgatti, “Identifying Sets of Key Players in a Social Network.”

¹⁷³ *Ibid.*, 22.

while Figure 20 depicts a sociogram with the five members removed. Note the minimal amount of fragmentation; removing this particular group of Zetas would cripple the organization but probably only temporarily. Interestingly, the largest cluster that remains consists of all original members of Los Zetas. A key player set of size six (Figures 21 and 22) would remove the previous five plus Sergio Enrique Ruiz Tlapanco (an original Zeta), but the main cluster still maintains its integrity even with his removal. A key player set of size seven (Figures 23 and 24) identifies the previous individuals in addition to Omar Lormendez Pitalua, another original Zeta. It also appears to cause only minimal damage to the network. Interestingly, a set of size eight (Figures 25 and 26) includes Sigifredo Najera Talamantes, who is not an original Zeta, but whose removal fragments a cluster laying on the periphery. A set of size of nine (Figures 27 and 28) adds German Torres Jimenez, an original Zeta, and appears to weaken the largest cluster. Finally, a set of size 10 (Figures 29 and 30) targets Julian Zapata Espinoza and further disconnects clusters on the margins. As can be seen, a set of size 10 causes the network to fragment the most, which makes its size the best-case scenario. More isolates and smaller clusters remain. Except for the cluster containing original Zetas, the rest of the clusters would become leaderless or without a person of authority; most are followers waiting to be tasked out. They would either attempt to make contact with an original Zeta, implode and disperse into the population, or attempt to keep cluster integrity and continue its criminal activity. Whatever the case, it will make it possible to craft a kinetic strategy even though large clusters remain.

Figure	Group Size	Key Player
26	9	German Torres Jimenez
22	7	Omar Lormendez Pitalua
20	6	Sergio Enrique Ruiz Tlapanco
24	8	Sigifredo Najera Talamantes
18	5	Heriberto Lazcano
18	5	Miguel Angel Trevino Morales
18	5	Gonzalo Geresano Escribano
18	5	Omar Martin Estrada
18	5	Oscar Alejandro Duran
28	10	Julian Zapata Espinoza

Table 5. Key Player Outputs for Removal; See Figures 19–30 for Sociogram



Figure 19. Five Key Players Identified for Removal

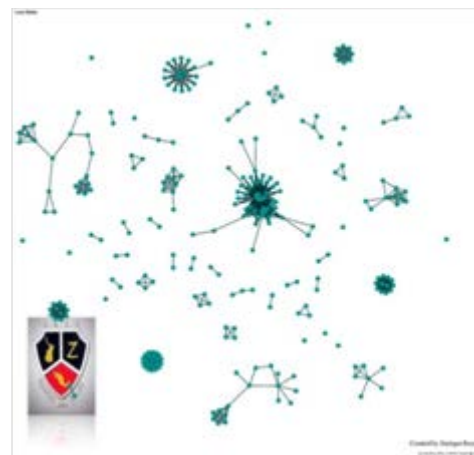


Figure 20. Five Key Players Removed

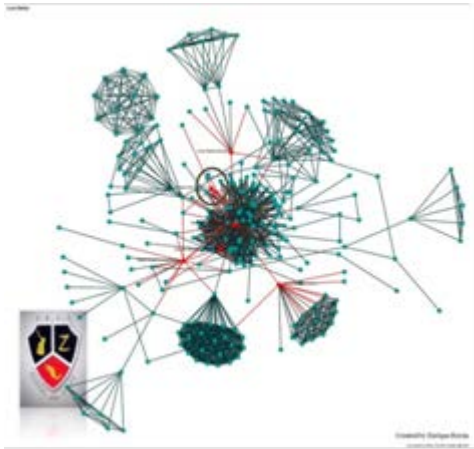


Figure 21. Six Key Players Identified for Removal

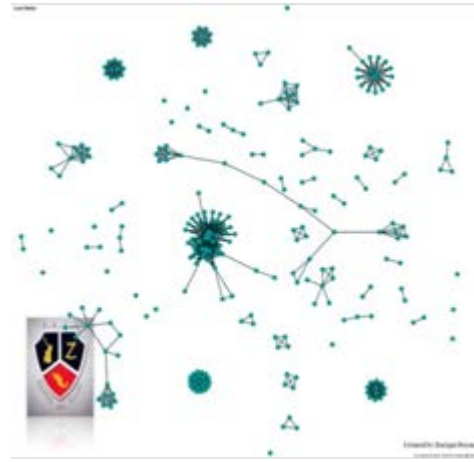


Figure 22. Six Key Players Removed



Figure 23. Seven Key players Identified for Removal

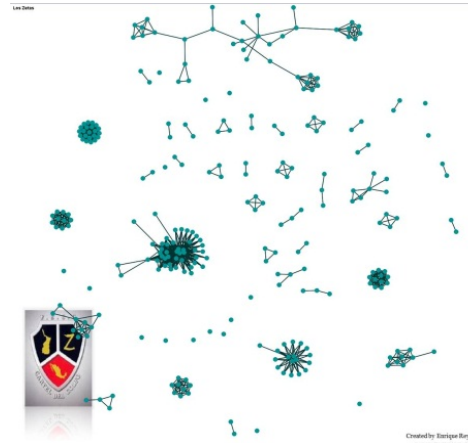


Figure 24. Seven Key Players Removed

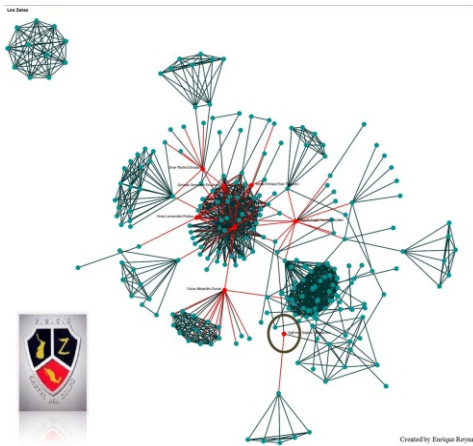


Figure 25. Eight Key Players Identified for Removal

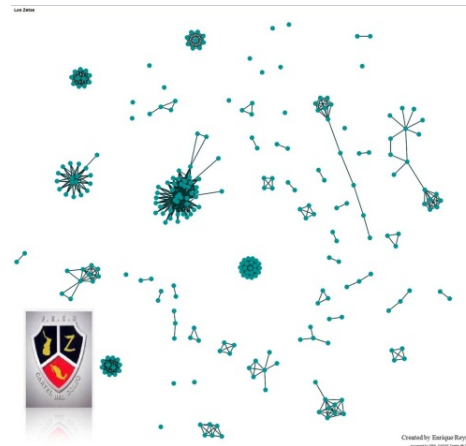


Figure 26. Eight Key Players Removed

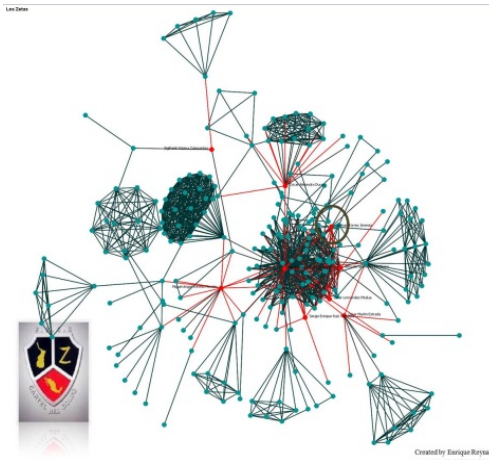


Figure 27. Nine Key Players Identified for Removal

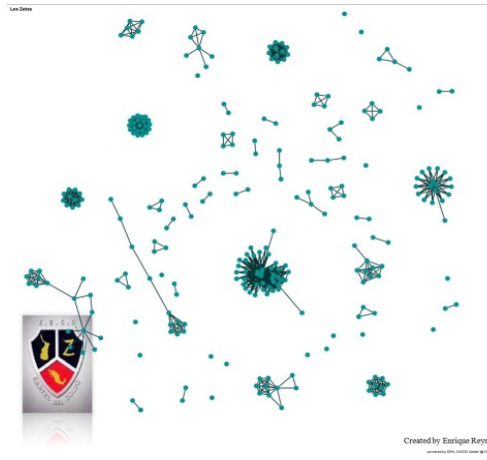


Figure 28. Nine Key Players Removed

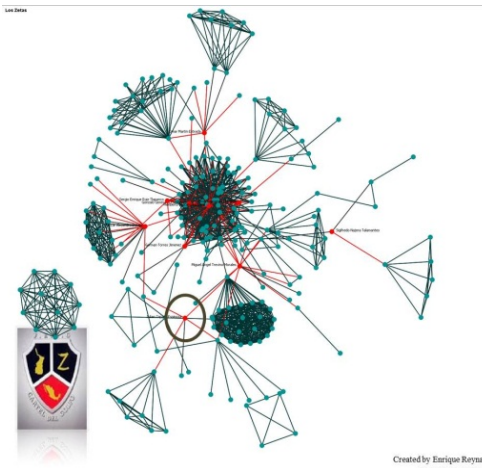


Figure 29. Ten Key Players Identified for Removal

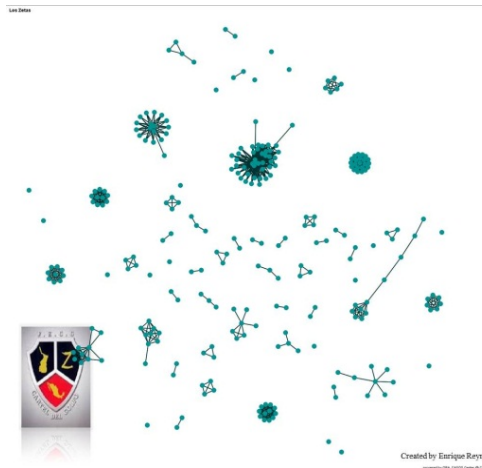


Figure 30. Ten Key Players Removed

As noted above, Borgatti also developed a diffusion algorithm that can be used in conjunction with a deception campaign that seeks to sow seeds of distrust throughout a network. Table 6 lists the optimal set of actors identified by this algorithm while the sociogram displayed in Figure 31 identifies these individuals by coloring the respective nodes red. Three members of Los Zetas, Heriberto Lazcano, Miguel Angel Trevino Morales, and Oscar Alejandro Duran, were identified by both key player algorithms, which suggest that either a capture/kill or deception operation that targets these individuals is viable. Targeting these men for deception operation while targeting the rest for kill/capture operations would be a consideration.

As with the key player fragmentation algorithm, with the diffusion algorithm, sets of size five through size 10 are compared and it was determined that a set of size 10 reached the greatest number of actors. As stated earlier, the network illustrated herein is a snapshot in time; Los Zetas are considered well over 4,000 members strong. Therefore, using a group of 10 for diffusion would ensure at a minimum that those members in this network would be embroiled in a deception campaign at some capacity. Interestingly, five of the 10, Alfonso Martinez Salvador Escobedo (regional leader), Esvin Leonel Batres Hernandez (captured), Heriberto Lazcano, Miguel Angel Trevino Morales, and Oscar Alejandro Duran (captured), are also identified in the betweenness centrality measure. The other five members identified are Jose Manuel Benitez Carballo (cell

leader, hitman), Anubis Anula Martinez (cell leader, ex-infantryman, hitman), Armando Rivera (cell leader, hitman, and bodyguard), Yaneth Deyanira Garcia Cruz (financier), and Rene Alberto Quiroz Tadeo (Halcon leader, hitman). Interestingly, the latter four members also serve as leaders, although in a lower capacity, and lie on the periphery and are the hubs that connect their cluster to that of the original Zetas. Yaneth Deyanira Garcia Cruz is the only female identified; her role is significant in that she has been handling large sums of money for the criminal organization before Los Zetas split from the CDG. Her knowledge of both organizations would immensely facilitate a strategy.

Key Player
Alfonso Martinez Salvador Escobedo
Jose Manuel Benitez Carballo
Anubis Anula Martinez
Armando Rivera
Esvin Leonel Batres Hernandez
Heriberto Lazcano
Miguel Angel Trevino Morales
Yaneth Deyanira Garcia Cruz
Oscar Alejandro Duran
Rene Alberto Quiroz Tadeo

Table 6. Key Players for Diffusion

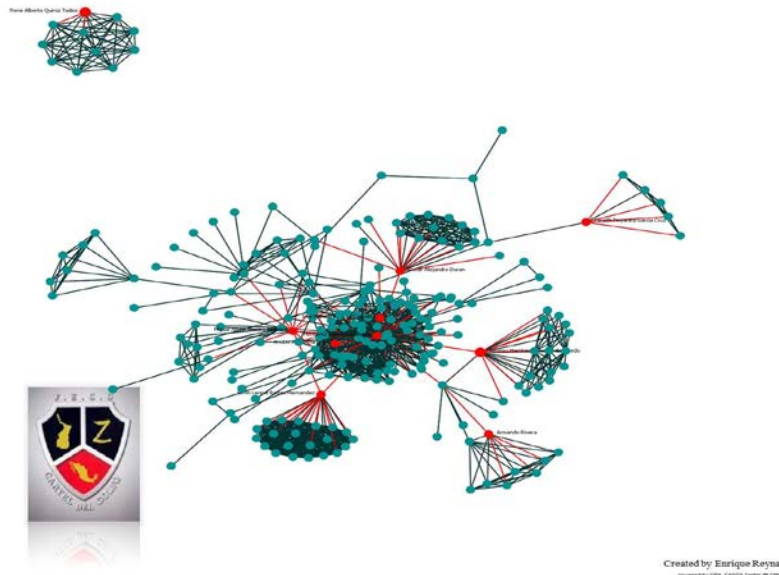


Figure 31. Key Player Diffusion

G. SUMMARY

Table 7 summarizes the results of the centrality and key player metrics used in this chapter's analysis. As noted earlier, a high degree of correlation exists concerning degree, closeness, and eigenvector centrality. However, they do differ substantially from the optimal set of key players identified in terms of fragmentation; indeed, more overlap occurs between the key player fragmentation metrics and the betweenness centrality scores. In terms of a deception operation, it can be seen that some overlap exists between the key player diffusion algorithm and the other rankings. All of this suggests that before any final decisions are made, additional data mining and information gathering on the Los Zetas network is probably in order. Finally, whether using centrality measures or key player algorithms, one thing is clear. The cluster of original Zetas remains intact, which is the nexus and center of gravity for Los Zetas, the essential operational ties, and although not depicted, ties with a military legacy these men have left behind. The next chapter discusses strategies and recommendations for the disruption of Los Zetas.

Member/ Node	Centrality				Key Player	
	Closeness	Degree	Betweenness	Eigenvector	(KPP-NEG) Removal	(KPP-POS) Diffusion
Heriberto Lazcano	1	1	1	1	X	X
Miguel Angel Trevino Morales	10		5		X	X
Jesus Enrique Rejon-Aguilar	2	2		2		
Esvin Leonel Batres Hernandez	9		2			X
Raul Lucio Hernandez Lechuga	8	9				
Carlos Vera Calva	3	3		3		
Galindo Mellado Cruz	4	4		4		
Omar Mendez	5	5		5		
Raul Trejo Benavides	6	6		6		
Alfonso Martinez Salvador Escobedo			3			X
Oscar Alejandro Duran			4		X	X
Omar Martin Estrada			7		X	
Juan Daniel Carranco Salazar			8			
Octavio Almanza Morales			6			
Julian Zapata Espinoza			9		X	
Sigifredo Najera Talamantes			10		X	
Luis Reyes Enriquez		8		8		
Gonzalo Geresano Escribano	7	7		7	X	
Rogelio Guerra Ramirez		10		9		
Priscilliano Ibarra Yepis				10		
German Torres Jimenez					X	
Omar Lormendez Pitalua					X	
Sergio Enrique Ruiz Tlapanco					X	
Jose Manuel Benitez Carballo						X
Anubis Anula Martinez						X
Armando Rivera						X
Yaneth Deyanira Garcia Cruz						X
Rene Alberto Quiroz Tadeo						X

Numbers refer to rank in each measure, 1 is highest score. Only the top 17% (20 actors) are ranked based on measure outputs.

Table 7. Centrality and Key Player Measures within Los Zetas' Network.

VII. CONCLUSION

A. INTRODUCTION

The main objective of this study was to identify key organizational components of Los Zetas, whose disruption will weaken or undermine its operational capability. Drawing from elements of SMT, the research focused on analyzing the resource components necessary for Los Zetas to emerge, grow and succeed in its operations. The authors researched in detail the financial aspects of Los Zetas and then used geospatial analysis to explore modes of operations in key areas of interest. Finally, SNA was employed to amplify the view of its organizational structure. The driving argument of this research remains that denying Los Zetas access to critical resources; key terrain and targeting its organizational structure will force Los Zetas to collapse or greatly diminish its operational capability.

B. APPROACHES

Two different approaches are available to choose from with a variety of strategies under each respectively. The kinetic route can be chosen using faceless, armed warriors moving surreptitiously into terrorist safe havens, closing in with well-placed shots to the enemies' heads. Although direct action as just described can play a critical role in diminishing threats, it is not the only available tool; it may be particularly detrimental to achieving more pervasive effects. Certainly, killing a key member of a criminal network creates an immediate gap. Yet often, that gap is only temporary, and the network may even exhibit more fervor in response.¹⁷⁴ Thus, when formulating an effective counter cartel strategy, it is best to consider a combination of kinetic and non-kinetic measures that complement each other and allow authorities the greatest amount of control. The indirect route strategies include Information Operations, Military Information Support Operations (MISO), as well as reconciliation and reintegration operations.

¹⁷⁴ Nancy Roberts and Sean F. Everton, "Strategies for Combating Dark Networks," *Journal of Social Structure* 12 (2010): 4.

The key is not to simply disrupt the network. The very essence of a decentralized network is that disruption or elimination of the hubs or other ties does not and will not stop the movement.

Leaders at strategic levels, as well as grass roots leaders, are consulted for inspiration and as virtual hubs, keep the idea and the impetus alive over any operation. Los Zetas may die, but the ZETA ideology will continue. In *The Starfish and the Spider*, authors Ori Brafman and Rob Beckstrom, note:

A decentralized organization is a completely different creature. Nevins explained that the traits of a decentralized society—flexibility, shared power, ambiguity—made the Apaches immune to attacks [by the Spaniards] that would have destroyed a centralized society.¹⁷⁵

The authors' approach is strictly military in nature, which is part of a greater holistic strategy that seeks to disconnect not only the actors, but to sow seeds of distrust within the network to begin its implosion.

The number of relationships and knowledge type between relationships leads to an actor's adaptability, which is commensurate to flexibility. Conversely, the less aware a member or members become, the greater the likelihood of a network developing distrust and imploding. A highly connected network will have many members with operational ties, and thus, fewer single cut points. A sparse network may have communication chains fragmented easily by the elimination of one or two key persons, which reduces its ability to give and receive information. Siblings quarrel routinely over trivial events; the effects of intentionally injecting seeds of distrust issues along fault lines of trust and then severing family communication links would be damaging to the relationship. Eventually, tensions will build; family unity will begin to unravel, which then forces members to turn their attention and activities towards issues of trust and dissension.

¹⁷⁵ Ori Brafman and Robert Beckstrom, *The Starfish and the Spider: The Unstoppable Power of Leaderless Organizations* (New York: Penguin Group, 2006), 21.

C. POLICY RECOMMENDATIONS

The analytical tools mentioned previously are all interdependent of each other. Developing an efficient disruption strategy will require engagement in all *instruments* of national power. These recommendations are based on the exploration of its financial practices and geospatial, temporal, and, SNA, of its organization. Table 8 provides a comprehensive summary of the recommended disruption strategy discussed in detail.

Areas	Approaches	
	Kinetic	Non-Kinetic
(Countering Illicit Finance Methods) Attack Finance Infrastructure	Capture/Kill	Stricter laws
	Raids/ Seizures	Increase punishment Freeze Assets
(Geospatial and Temporal Analysis) Key Terrain: Deny Access to Key Terrain Falcon Lake	Increase presence (Coast Guard)	Increase Surveillance
	Escalation of Force	Restrict Movement
		Request permits Increase Cooperation
(Geospatial and Temporal Analysis) Key Terrain: Regain/Control Access to Key Terrain Nuevo Laredo	Capture/Kill	Rehabilitation
	Clear & Secure: Unity of effort (Isolate Population)	Support self-defense groups Work with Zetas' opposition
	Control Terrain	Hold, build
(Social Network Analysis) Attack the Network	Capture/Kill	Rehabilitation
	Penetrate Organization	Deception/ Surveillance
	Counter Perception Operations	Media Campaign
	Simultaneous Targeting	Increase Capacity/Cooperation

Table 8. Los Zetas: Disruption Strategy (Not All Inclusive)

D. FINANCES

The recommended strategy to disrupt the money flow of Los Zetas includes both kinetic and non-kinetic approaches. For the kinetic approach, it is essential to continue the aggressive targeting of financiers and accountants. Apprehension of financiers denies the organization of specialized skills not easily replaced, which in turn, degrades their ability to sustain operations. Monterrey serves as the money-laundering hub for Los Zetas using casinos.¹⁷⁶ The main disruptive effort should focus on targeting individuals tied to the casino industry. Denying Los Zetas access to the casinos in Monterrey will force it to

¹⁷⁶ Ramsey, "Behind the Battle for Monterrey."

move further away from its main operational center in Nuevo Laredo. This action will cause it to overextend its resources to areas south and west from Monterrey and thereby, increase its vulnerability to rival cartels.

The non-kinetic recommendations are nationally focused and consist primarily of enforcing the recent amendments to the strategy for combating financing of illegal drug cartels. Recently, Mexico established significant limits on U.S. dollar transactions allowed under law by Mexican citizens and tourists.¹⁷⁷ A tighter enforcement and monitoring of these new laws is required to have an effective impact on combating money-laundering operations. Although these amendments are a step in the right direction, innovative criminal organizations can bypass these restrictions in several ways.

E. GEOSPATIAL ANALYSIS

To understand this organization further, it is now more important to illuminate its operational terrain and key locations. To construct a graphic representation of Los Zetas' operational environment, spatial and temporal data was analyzed. Access to country level spatial data was easily available through an array of media channels, but due to the limited scope of this study and time constraints, the disruption strategy focused on Falcon Lake and Nuevo Laredo, both part of a strip of terrain called Frontera Chica, which is in close proximity to the U.S.-Mexico border.

F. FALCON LAKE

Los Zetas continues to enjoy a significant level of freedom of movement across the U.S. border.¹⁷⁸ Developing a disruption strategy that will diminish its operational freedom of action requires utilization of several disciplines. Employment of temporal and spatial analysis of criminal activities reveals critical information of its operational

¹⁷⁷ "In Mexico, Transactions with Dollars Face Scrutiny," *Associated Press*, <http://www.nytimes.com/2010/06/16/world/americas/16mexico.html>.

¹⁷⁸ Kelsey Sheehy, "Hill Republicans Try to Designate Mexican Drug Cartels As Terror Groups," *The Daily Caller*. <http://dailycaller.com/2011/05/12/hill-republicans-try-to-designate-mexican-drug-cartels-as-terror-groups/#ixzz1ZfjuCMBW>.

environment.¹⁷⁹ Interestingly, the analysis on Falcon Lake revealed that Los Zetas frequently transits the area and faces minimal obstacles gaining access into the United States. Denial of this access point can severely limit Los Zetas' resource generation means. It is important that both U.S. and Mexican authorities regain complete control of this area by establishing a permanent presence on the lake. One recommendation is to establish a presence with the augmentation of Coast Guard vessels. Permanent presence of Coast Guard vessels and security patrols will allow for greater coverage of the lake. It will also provide existing border patrol units at the lake with sufficient flexibility to cover other areas of the terrain.

A criminal activity analysis of the lake revealed that Los Zetas remains most active in the northern area. Increased security presence in this location will deny it unrestrictive access into the United States and force it to shift operations to the wider portion of the lake or abandon it completely. Additionally, the use of technology enablers can reveal important points of vulnerability against Los Zetas. For example, employment of Intelligence Surveillance (ISR) platforms can provide a wider coverage of the lake to alert authorities of significant activities. The utilization of unattended ground sensors can complement coverage on areas where surveillance platforms have dead space. Employment of maritime radars at this location can increase situational awareness of ongoing criminal activities.

Ultimately, to effectively deny Los Zetas access to Falcon Lake, a unity of effort between both sides of the border will have to be established. Both the U.S. and Mexican authorities need to increase cooperation and share information to suppress smuggling activity on the lake. In the end, U.S. and Mexico's border security issues require close collaboration and the security challenges manifested at Falcon Lake are no exception.

G. NUEVO LAREDO

The analysis of Nuevo Laredo reveals that Los Zetas maintains overwhelming control of and freedom of movement in this city. Nuevo Laredo has several avenues of

¹⁷⁹ Headquarters, Department of the Army, "FM 3-24. Counter Insurgency," *Marine Corps Warfighting Publication*, no. 3-33.5 (2006): Appendix B, b-1-2.

approach that facilitate escape routes and free access. Most of Los Zetas' presence is concentrated along Avenida La Reforma to protect drug storage facilities and safe houses. Los Zetas' support infrastructure in Nuevo Laredo is well distributed to provide early warning and defense against incoming offensives.

A strategy to regain control of this location will require a substantial effort from the government of Mexico similar to the initiative put forth during Operation Secure Mexico in 2005.¹⁸⁰ Although this operation produced significant results, the effects were temporary and Los Zetas still managed to remain in control of Nuevo Laredo. The intent of this approach is to exercise authority in this city and permanently isolate the population from the influence of Los Zetas. It would begin with sealing the town's access points and preventing reinforcements from entering or allowing Los Zetas to escape Nuevo Laredo. After blocking the main avenues of approach, the main effort shifts and concentrates on clearing Avenida La Reforma. It is necessary to swarm these operational centers with overwhelming force to clear and secure key terrain. Once the city is secured, the effort should shift to holding in place. The holding phase requires security forces to show presence with persistent patrols and to begin to win the trust of the population by remaining in place. During this phase, the intent is to project the image that the government establishes and maintains social control and not Los Zetas. Holding the terrain demands an increase in manpower; therefore, a rehabilitation process is essential in this phase.

The establishment of a National Guard concept that instills integrity, loyalty, and a renewed pledge to protect and serve the people can act as a platform to rehabilitate individuals, reintegrate them back into society, and increase security resources in the area. The intent of the National Guard concept is threefold. First, the recruitment of unemployed males into a formal structure provides the government a method of control over a significant sector of the population and limits Los Zetas' recruitment. Second, this concept provides individuals with identity, status, and best of all, the means for subsistence. Third, this concept provides internal security to the local area and prevents

¹⁸⁰ STRATFOR: Global Intelligence, "Mexico: Fox's Uphill Battle to Win the Drug War," June 29, 2005, http://www.stratfor.com/mexico_foxs_u uphill_battle_win_drug_war.

Los Zetas from returning to Nuevo Laredo. In the end, this isolation strategy separates Los Zetas from arguably the most important resource for the organization, the population.¹⁸¹ Another piece as important to operationalize is an oversight committee similar to internal affairs independent of the National Guard to dissuade corruption. This approach is intended to have a long-lasting effect by providing employment and other socio-economic options for the population.

H. SOCIAL NETWORK ANALYSIS/ KINETIC

The authors' recommended kinetic approach focuses on the elimination of key nodes and links between individuals, groups, and organizations.¹⁸² It is based on the results of identification of key actors in terms of closeness, betweenness, eigenvector, and degree centrality measures, as well as key player algorithms. Based on these measures, the authors contend that the individuals listed below must be captured, killed, or neutralized.

Removing the 10 top key players does fracture the network by splitting it into smaller clusters/groups by breaking communications; therefore, key players should be considered in the decapitation or kill/capture strategy also. In addition to the smaller clusters, more isolates (nodes or members with zero links or ties) are seen. Two members, Heriberto Lazcano (Top Leader) and Miguel Angel Trevino Morales (Second in Command), appear in both the removal and diffusion tables; therefore, either option is viable. Their removal from the organization will significantly fragment the structure and severely inhibit Los Zetas' operational capability. It is important to note that individuals imprisoned in Mexico maintain significant control and influence over operations in the organization.¹⁸³ Therefore, to counter the detained individuals' influential control over the criminal network, it is necessary to extradite and completely isolate them. In Table 9, the Key Player algorithm KPP-NEG reveals 10 members of Los Zetas for removal

¹⁸¹ Robert Culp, "Strategy for Military Counter Drug Operations," *Small Wars Journal*, January 2011, smallwarsjournal.com/blog/journal/docs-temp/656-culp.pdf.

¹⁸² Roberts and Everton, "Strategies for Combating Dark Networks," 4.

¹⁸³ Eidart, "Drug Gangs "Self-Rule" Mexican Prisons," <http://eidart.wordpress.com/2011/04/30/drug-gangs-self-rule-mexican-prisons>.

consideration. Six of the 10 appear under betweenness (brokers) and two under eigenvector centrality, respectively. Due to the members' resourcefulness and proximity to central leaders, their removal is recommended as well.

Member/ Node	Centrality				Key Player
	Closeness	Degree	Betweenness	Eigenvector	(KPP-NEG) Removal
Heriberto Lazcano	1	1	1	1	X
Miguel Angel Trevino Morales	10		5		X
Jesus Enrique Rejon-Aguilar	2	2		2	
Raul Lucio Hernandez Lechuga	8	9			
Carlos Vera Calva	3	3		3	
Galdindo Mellado Cruz	4	4		4	
Omar Mendez	5	5		5	
Raul Trejo Benavides	6	6		6	
Oscar Alejandro Duran			4		X
Omar Martin Estrada			7		X
Julian Zapata Espinoza			9		X
Sigifredo Najera Talamantes			10		X
Luis Reyes Enriquez		8		8	
Gonzalo Geresano Escribano	7	7		7	X
Rogelio Guerra Ramirez		10		9	
Prisciliano Ibarra Yepis				10	
German Torres Jimenez					X
Omar Lormendez Pitalua					X
Sergio Enrique Ruiz Tlapanco					X

Table 9. Nineteen of the 349 Members Coded Represent 5.4% of the Network for Removal of the Entire Network, but a Higher Percentage of the Connected Network.

I. OTHER CONSIDERATIONS

Two important factors should be considered when pursuing the kinetic approach against individuals in Los Zetas' network with high closeness centrality. First, members with a high closeness centrality are too embedded in the core of the organization and

would not be responsive to rehabilitation or counter ideology tactics.¹⁸⁴ Second, some criminal organizations have the ability to replace individuals at the top quickly and remain resilient against hostilities.¹⁸⁵ Consider the members with high eigenvector centrality, as they are members of the organization with ties to highly central members who may be in a position to replace existing leaders. They may have intimate knowledge of the internal affairs within the organization solely due to their close proximity to current leadership. In Table 9, the top two ranked members are current leaders already. Thus, it may be prudent to consider those ranked third through tenth as emergent leaders (i.e., potential future leaders) because of their proximity to current leaders. Los Zeta member, Jesus Enrique Rejon-Aguilar, has already been captured and little is known about constraints on his daily activity or the activity of those at large. The common ground with members with high eigenvector centrality is that they are all original Los Zetas. Therefore, a targeting strategy against Los Zetas has to shift to simultaneous targeting versus the current sequential approach. Nevertheless, a disruption strategy solely focused on a kinetic approach will produce limited results.

J. SOCIAL NETWORK ANALYSIS/NON-KINETIC

A non-kinetic approach takes longer to implement, but once emplaced, it can contribute immensely to a disruption strategy. The non-kinetic options against Los Zetas' network focuses on using a deception strategy against individuals rated with high betweenness centrality.¹⁸⁶ Based on the authors' analysis, it is possible to identify two individuals. The contention is that these individuals provide the optimal platform to inject bites of misinformation into the network and produce the greatest disruptive effects. Referencing Table 10, if dissention can be created between Heriberto Lazcano and Miguel Angel Trevino Morales, it might split the organization. The end state intended with this approach is to create an implosion or fragmentation of the organization.

¹⁸⁴ Roberts and Everton, "Strategies for Combating Dark Networks," 16.

¹⁸⁵ *Ibid.*, 11.

¹⁸⁶ *Ibid.*, 14.

Members who rate high in betweenness centrality are those who hold leverage between clusters and groups within the organization due to positions of brokerage. Hence, it is expected that the misinformation will provoke enough friction to force preemptive attacks against other members, which causes a fragmentation or weakening of the organizational structure. In addition, Table 10 reveals that five of the 10 members identified in both betweenness centrality and the Key Player KPP-POS algorithm are original Zetas and central to the organization. The other five members identified for diffusion under the KPP-POS algorithm are not original Los Zetas and remain on the periphery of the criminal organization.

These individuals are listed below.

Member/ Node	Centrality				Key Player
	Closeness	Degree	Betweenness	Eigenvector	(KPP-POS) Diffusion
Heriberto Lazcano	1	1	1	1	X
Miguel Angel Trevino Morales	10		5		X
Esvin Leonel Batres Hernandez	9		2		X
Carlos Vera Calva	3	3		3	
Galdino Mellado Cruz	4	4		4	
Omar Mendez	5	5		5	
Raul Trejo Benavides	6	6		6	
Alfonso Martinez Salvador Escobedo			3		X
Oscar Alejandro Duran			4		X
Omar Martin Estrada			7		
Juan Daniel Carranco Salazar			8		
Octavio Almanza Morales			6		
Jose Manuel Benitez Carballo					X
Anubis Anula Martinez					X
Armando Rivera					X
Yaneth Deyanira Garcia Cruz					X
Rene Alberto Quiroz Tadeo					X

Table 10. Seventeen of the 349 Members Coded Represent 4.9% of the Network for Diffusion.

In summary, the use of social network analysis offers an additional optic to illuminate Los Zetas' organizational structure. It provides the necessary magnification of the network to identify key individuals and their locations to enable targeted operations. It also highlights critical points to employ non-kinetic options. It is important to note that in developing this strategy, the metrics and graph on Los Zetas should be utilized concurrently; failure to do so can potentially yield a faulty strategy. Another cautionary point to consider is that the removal of highly central individuals may only have a temporary disruptive effect on the network.¹⁸⁷ Los Zetas is a highly dense organization, which shows extreme resilience with the ability to replace leadership in a short period of time.¹⁸⁸ The approach herein employs tactics to affect both members central to the organization and on its periphery. Clearly, targeting the organizational structure of Los Zetas is crucial in debilitating its operational capacity.

K. OTHER RECOMMENDED APPROACHES: KINETIC AND NON-KINETIC

1. Capacity Building and Targeting

The current strategy of the government of Mexico focuses on counter-leadership targeting; arguably, it has yielded limited results.¹⁸⁹ Nevertheless, it is essential that targeting at this level continue against Los Zetas' infrastructure. Complementing this effort should include the targeting of Los Zetas' white-collar support infrastructure. The lawyers, accountants, and politicians who work for Los Zetas must be targeted with the same intensity as the leadership. This method will significantly degrade the organization by targeting members who have specialized skills and are not easily replaced.

¹⁸⁷ Sean F. Everton, "Network Topography, Key Players and Terrorist Networks," (paper presented at the annual conference of the Association for the Study of Economics, Religion and Culture in Washington, DC, 2009), 1.

¹⁸⁸ "Mexico-U.S.: Has Targeting Top Cartel Bosses Been Effective?" http://www.latinnews.com/latinnewsdaily/item/47662.html?period=2011&archive=26&cat_id=785565%3Amexico-us-has-targeting-top-cartel-bosses-been-effective%3F.

¹⁸⁹ As cited in George Grayson, "President Felipe Calderon Launches Ambitious Campaign Against Drug Cartels," <http://www.allbusiness.com/north-america/mexico/3990914-1.html#ixzz1Zg8XROJD>.

An improvement to the current strategy is to shift to a simultaneous approach. This strategy requires an increase in security capacity. The United States can support the capacity building efforts by providing training and logistics to facilitate the execution of multiple targets. Additional support may consist of providing airlift assets, weapons, ammunition, etc. Unfortunately, U.S. trainers on Mexican soil may not be an accepted course of action; therefore, a nontraditional methodology is necessary.

The Mexican government currently limits the presence of American boots on the ground,¹⁹⁰ which hinders the ability of U.S. troops to train and provide assistance to Mexican forces. Two courses of action may work in this instance. The first consists of bringing Mexican troops into the United States to receive the necessary training and increase its operational size.¹⁹¹ The second involves the use of a partner force that can operate in Mexico without the restrictions imposed on American forces. Recently, the Colombian National police have trained the Mexican police in country.¹⁹² Potentially, Colombian forces can continue to expand their role as trainers in Mexico.

2. Extradition and Mexican Laws

Currently, the U.S. and Mexican governments have a formal extradition treaty.¹⁹³ Unfortunately, the process is too lethargic. For example, it took four years to extradite the former leader of the Gulf Cartel.¹⁹⁴ The current extradition process limits access to

¹⁹⁰ Eduardo Castillo and Martha Mendoza, "Drones, Bugs and Boots on the Ground: U.S. Law Enforcement Widens Its Role in Mexico Drug War," *The Associated Press*, <http://www.news1130.com/news/world/article/199936--drones-bugs-and-boots-on-the-ground-us-law-enforcement-widens-its-role-in-mexico-drug-war>.

¹⁹¹ Military exchange programs are being conducted worldwide. The percentage of those soldiers (known) who choose to join criminal organizations or illegitimate groups is insignificant as compared to those who go on and do great things for their military and country.

¹⁹² Juan Forrero, "Colombia Stepping Up Anti-Drug Training of Mexico's Army, Police," <http://www.washingtonpost.com/wp-dyn/content/article/2011/01/21/AR2011012106325.html>.

¹⁹³ United States and Mexico: Extradition Treaty with Appendix. No. 19462 signed at Mexico City, May 4, 1978, untreaty.un.org/unts/60001_120000/5/34/00009695.pdf.

¹⁹⁴ "Why Extraditing Mexico Drug Traffickers Could Strengthen Drug Gangs," *Insight Crime*, <http://internationalextraditionblog.com/2011/08/19/why-extraditing-mexico-drug-traffickers-could-strengthen-us-gangs/>.

current intelligence and reduces the effectiveness of the operations. The authors' recommendation is to amend the current extradition agreements to expedite the process.

An important aspect of the Mexican judicial system is the absence of a plea bargain,¹⁹⁵ which denies the detainee any incentives to negotiate and provide information on the organization. Nevertheless, by expediting extradition into the United States, negotiations can proceed under different laws and actionable intelligence can be obtained. Another significant factor of the Mexican judicial system is the absence of capital punishment.¹⁹⁶ At a minimum, those individuals associated with crime against humanity (mass graves, sensational crimes) should receive capital punishment. Implementing capital punishment may serve as deterrence for Los Zetas' recruitment efforts.

3. Penetration of the Organization

Los Zetas' approach to criminal activities displays innovation and adaptability.¹⁹⁷ The same approach must be taken to defeat them. A strategy to penetrate the organization can significantly degrade its criminal capacity. The first method to penetrate Los Zetas' organizational infrastructure is to ideologically turn selected detainees against the organization and allow them to return before their position is compromised. Once turned, authorities must ensure that individuals remain under their control and are willing to attend rehabilitation. Every effort should be made to exploit their access to the organization. Similarly, once they furnish the targetable information, substantial effort should be made to rehabilitate them. Ideally, this method is used against financiers and logisticians since these individuals have access to other members of the network and can easily be persuaded with rewards.

The second method follows directly from the arrests of financiers and logisticians. Targeting financiers and seizing large sums of money should weaken the network

¹⁹⁵ "Restorative Justice Warmly Received in Mexico," *ADR Report (VORP)*, <http://vorp.com/articles/mexico01.html>.

¹⁹⁶ Marion Lloyd, "Mexico: Death Penalty Gaining Support," *Global Post.com*, http://www.huffingtonpost.com/2009/01/14/mexico-death-penalty-gain_n_157868.html.

¹⁹⁷ Abigail Catherine, "Human and Drug Trafficking," *TalkingDrugs*, <http://www.talkingdrugs.org/human-trafficking-fuelled-by>.

significantly, and drive Los Zetas to increase already established relationships with corrupt police and politicians to protect its assets and the use of intelligence gathering.¹⁹⁸ In turn, this greater demand for corrupt officials and information on law enforcement operations will make Los Zetas vulnerable to penetration. By using a reversed penetration methodology, law enforcement agents can gain access to the organization.

Lastly, the Mexican military and police institutions experience a high number of desertions,¹⁹⁹ which creates an attractive pool of potential recruits for Los Zetas. More importantly, it provides another venue for penetrating the organization. The intent is to mold an intruder with the necessary attractive skills to infiltrate Los Zetas.

4. Counter Perception Operations

A more subtle approach entails the disruption of the Los Zetas' image. Currently, Los Zetas enjoys an overwhelming glorification of its criminal image as a group. It is not uncommon for young male adults to identify themselves with Los Zetas. Unfortunately, this greater-than-life image projection provides Los Zetas with a recruitment advantage. The authors contend that the distortion of Los Zetas' image can have a diminishing effect of its recruitment ability. One possible strategy to distort its image consists of empowering a few of the many emerging vigilante groups. These groups enjoy the local support of the population and have unlimited access to specific areas. Arguably, vigilante groups can benefit from military organization and material resources to fight off Los Zetas' presence within their local areas. By organizing and equipping these groups, the law enforcement effort generates force multipliers to deny Los Zetas space and safe havens.

Second, having a smaller group deliver a striking blow against the network may generate a significant psychological impact against Los Zetas. Essentially, the group has to appear significantly weaker than the more intimidating Los Zetas to create a "*David*

¹⁹⁸ Sam Logan, "Los Zetas: Evolution of a Criminal Organization," <http://www.isn.ethz.ch/isn/Current-Affairs/Security-Watch-Archive/Detail/?id=97554>.

¹⁹⁹ Rodriguez Rey, "Army Desertions Hurting Mexico's War on Drugs," <http://articles.cnn.com/2009-03-11/world/mexico.desertions-drug-cartels>.

versus Goliath” effect. This action must be followed by an extensive information operations campaign. In the end, the intent is to replace the strong image of Los Zetas with a much weaker and fragile one, as well as to construct the message to persuade the population that submission to Los Zetas control is not the only available option.²⁰⁰

5. Improving Intelligence Fusion

Los Zetas operational tentacles reach several countries in Central America, South America, and the United States.²⁰¹ To optimize the disruption strategy, a more extensive intelligence fusion effort is necessary. Increased collaboration among international law enforcement entities will furnish the required actionable intelligence flow between those elements interested in disrupting the organization.

The recommendation is to provide a cyber-platform to allow key law enforcement and state security agencies in the different countries affected by Los Zetas’ presence and optimize the sharing of information. For example, the use of an intelligence-based Facebook page can connect national law enforcement entities in El Salvador with a task force in the United States.²⁰² This platform will enable intelligence fusion by sharing information of recent operations against the network.

L. AREAS FOR FURTHER RESEARCH

The study presented in thesis only scratches the surface of Los Zetas and provides a snapshot in time of this criminal organization. Significant time constraints led to the narrowing of the focus on Los Zetas’ activities in Mexico. To deepen the understanding of this criminal enterprise, research must expand outside Mexico’s boundaries. Los Zetas has both regional and international ties in several countries, such as Guatemala, Honduras, El Salvador, Belize, Colombia and the United States. Los Zetas has also

²⁰⁰ Doowan Lee, Class Discussion and Notes from DA 3800 Theory and Practice of Social Revolution, September 2011.

²⁰¹ Lisa J. Campbell, “Los Zetas: Operational Assessment,” *Small Wars and Insurgencies* (Special Issue in Narcos Over the Border) 21, no. 1 (2010): 62–63.

²⁰² Discussion notes with CW3 Enrique Reyna and CW3 Dennis Castellanos (Thesis group) on September, 2011.

expanded its market reach into Western Africa and Europe by establishing strong contacts with Italian criminal organizations.²⁰³ Unquestionably, the employment of SNA and geospatial and temporal analysis as discussed will continue to be indispensable tools in further exploring Los Zetas.

M. SUMMARY

Arguably, Los Zetas demonstrates unmatched resiliency against current law enforcement efforts. A multi-disciplinary approach is needed to understand Los Zetas and develop an efficient disruption strategy. The analyses of Los Zetas financial practices reveal vulnerabilities that contribute to an enduring disruption strategy against them. The geospatial and temporal study identifies targetable opportunities in key terrain essential for Los Zetas to generate funds, while SNA illuminates weaknesses in the organizational structure of Los Zetas. In the end, attacking Los Zetas through multiple venues presented in this research may potentially lead to the organization's collapse.

²⁰³ Tim Johnson, "The Long Tentacles of Los Zetas," <http://blogs.mcclatchydc.com/mexico/2010/07/the-long-tentacles-of-los-zetas.html>.

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