

Best Practices For Transportation Security In Mexico

December 1, 2015



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Agenda

- **Mexico Cargo Theft – Geographic Context And Overview**
- **Geographic Control Of Drug Cartels In Mexico**
- **Theft Countermeasures And Risk Mitigation**
- **Role Of Security Escort Services**
- **Case Example – Road Versus Rail Considerations**
- **Summary And Conclusion**



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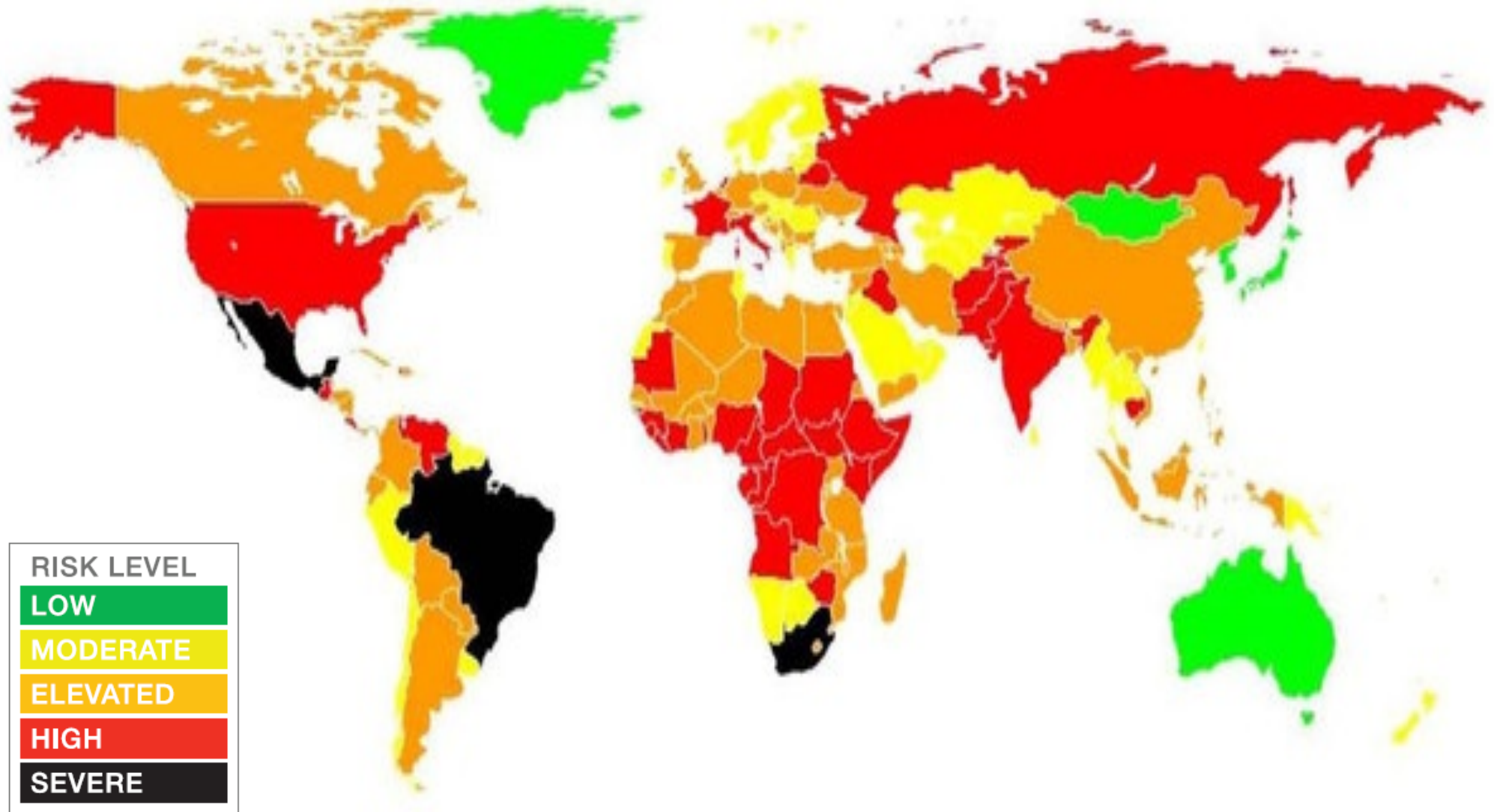
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Three Severe Cargo Theft Risk Geographic Regions

- Mexico
- Brazil
- South Africa





Mexico Is Well Known For Extraordinarily High Cargo Theft Risk

- **Cargo theft risk is prevalent throughout Mexico**
 - Most dangerous zones of cargo transportation are
 - Vicinity of major metropolitan cities (ie: Mexico City, Guadalajara)
 - Rural areas and isolated stretches of major highways
 - Border crossings between Mexico and United States
 - Organized crime groups are the main threat for cargo hijacking
 - In some geographies, it is safer to transport cargo via railway than by road
- **Some unique elements in Mexico**
 - Power of cartels and the prolific drug trade
 - Corruption and fraud are pervasive at all levels of government and LEA
 - Belief that almost 90% of cargo theft involves collusion of corrupt drivers/employees
 - Proximity to US and strong economic interrelationship and dependencies

Mexican States Of:

Guanajuato

Mexico

Puebla

RISK LEVEL

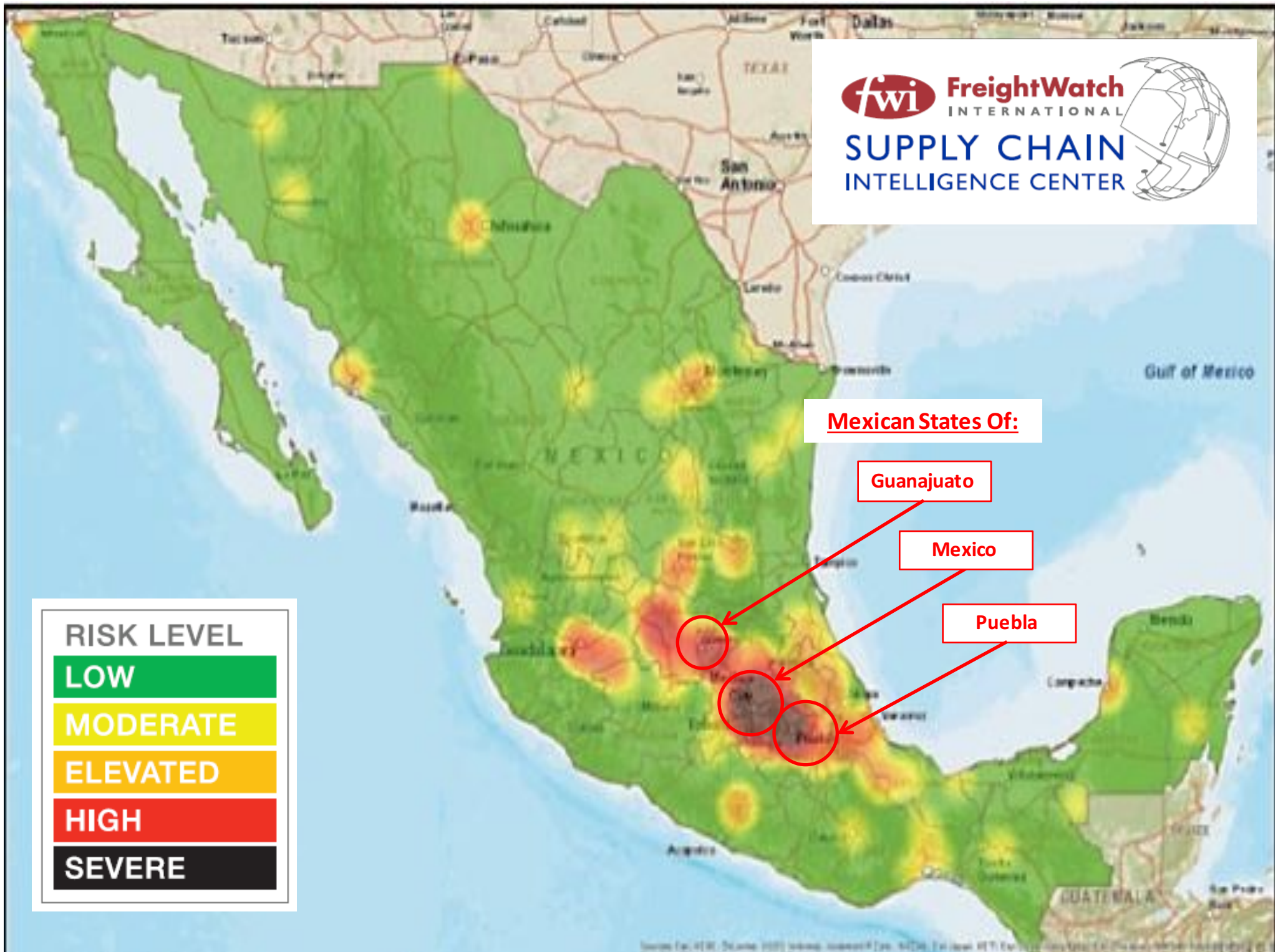
LOW

MODERATE

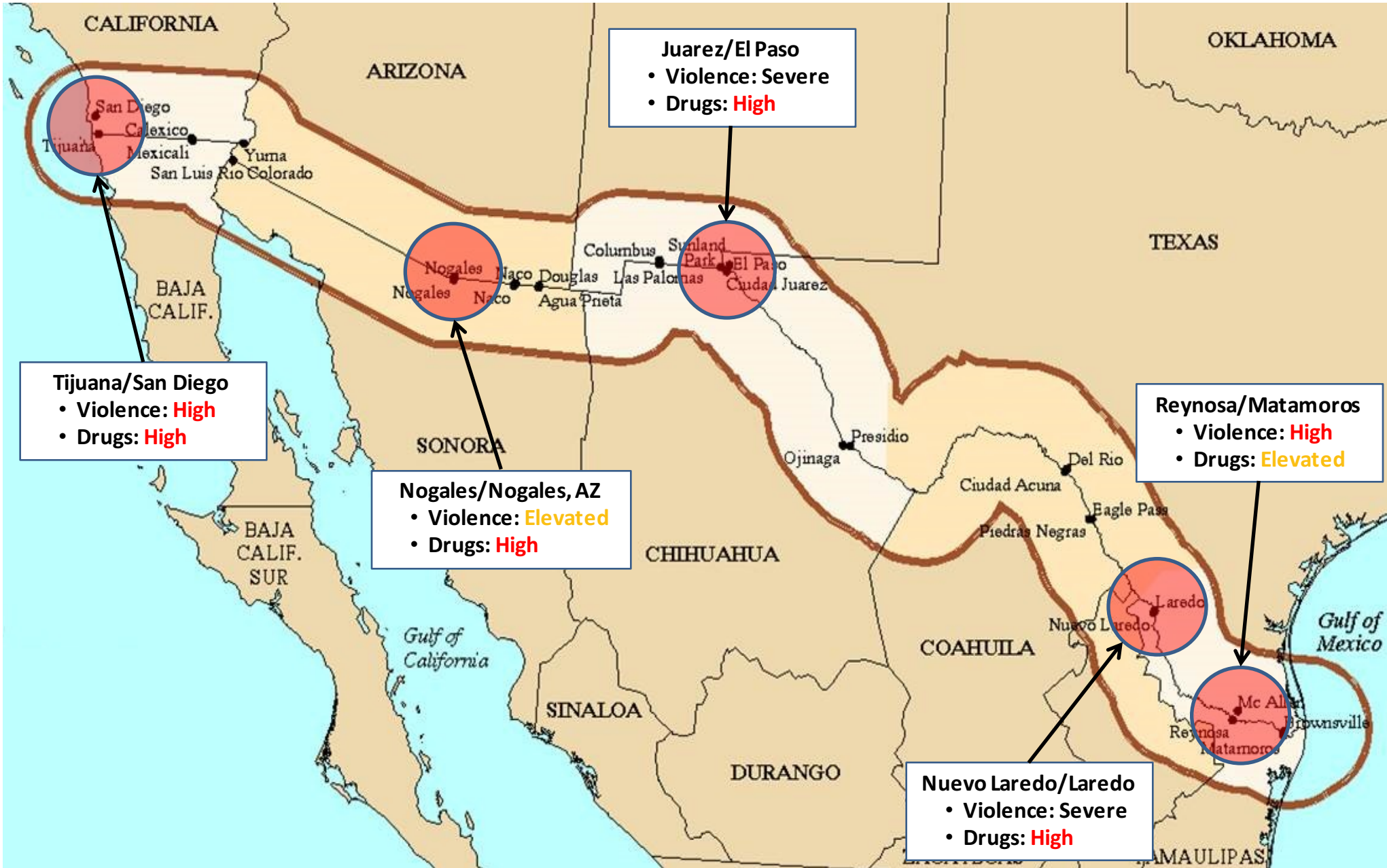
ELEVATED

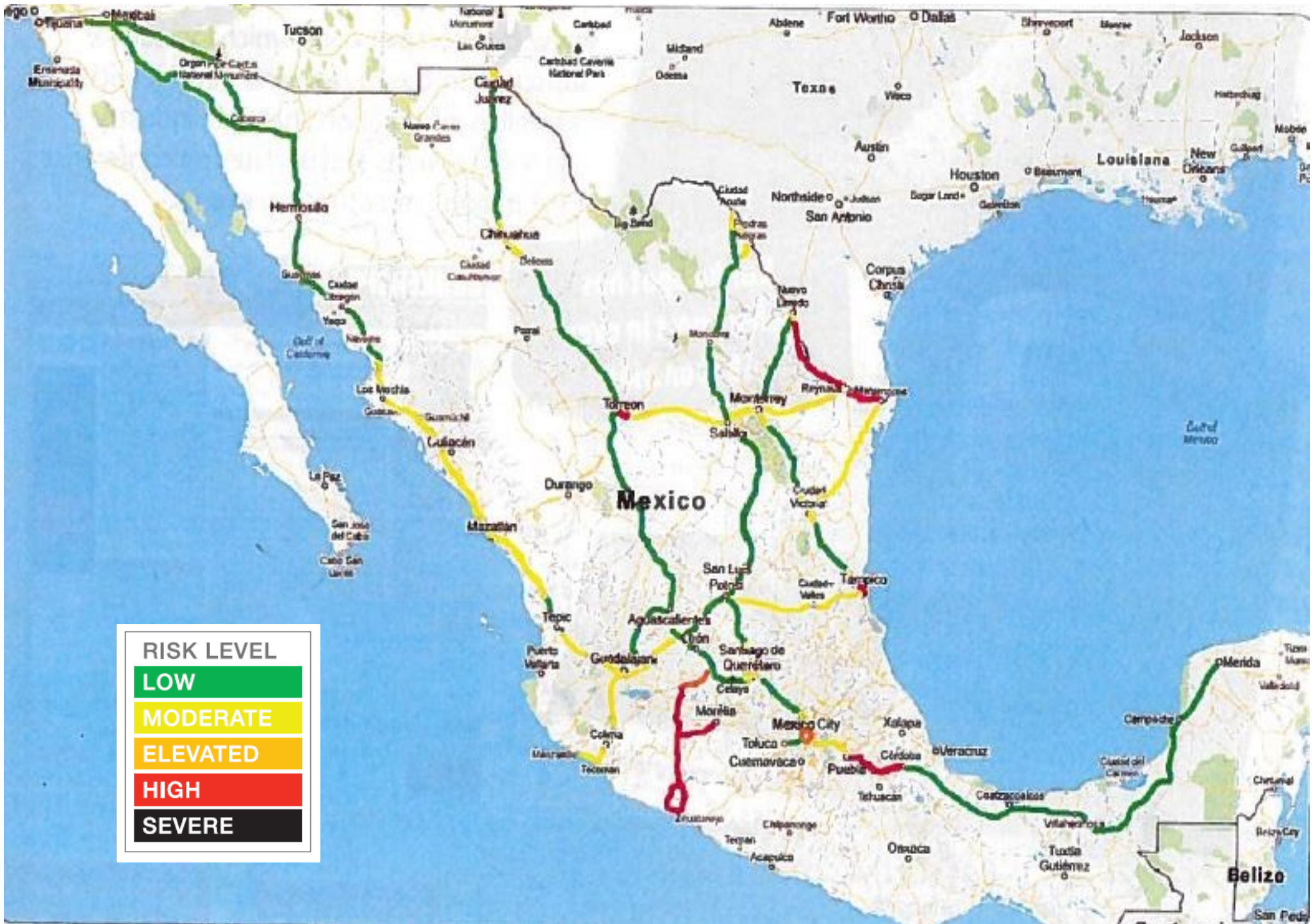
HIGH

SEVERE



Border Crossings







High-Risk Highways

- A. All highways in the state of Michoacán.
- B. Stretches of Federal Highways 134, 150, 129 and 140 between the states of Guerrero and Veracruz.
- C. Mexico City–Nuevo Laredo Federal Highways 57D, 54, 40, 85 and 85D.
- D. Mexico City–Puebla–Oaxaca Federal Highways 150 and 135D.
- E. Zacatecas–San Luis Potosí Federal Highway 49.



So, Is It Possible To Operate Theft-Free In Mexico?

- **Now: yes, but need extensive planning and security controls**
 - Extraordinary risks require extraordinary countermeasures
 - An enormous number of variables need to be considered /optimized
 - Risk variations due to type of goods and geographic region/transit lane
- **Future: probably, but what if current conditions get worse?**
 - Cartels are still powerful and expanding in scope-and-size in some regions
 - Corruption continues unabated and is pervasive in some LEA organizations
- **Caveats**
 - No silver bullets, no cookie-cutter answers
 - Security is very costly and requires expertise that is very specialized
 - TAPA is not enough; need “TAPA on steroids”
 - Assureds that attempt to minimize logistics costs will logically be most vulnerable
 - Some solutions are “wink and a nod” and can include payoffs and corruption



Global Context: Is Mexico Approaching An Inflection Point?

- **China manufacturing has stabilized at higher costs levels**
 - Direct labor and transportation costs have slowly elevated
 - “Landed cost” of exported finished goods has gotten progressively higher
 - China pushing economic development further west (ie: Chongqing)
- **Other low-cost alternatives are becoming more viable**
 - Vietnam
 - Thailand
 - Malaysia
 - India
 - Mexico
 - Eastern Europe
- **Prudent supply chain choices can be adverse to Mexico risk issues**
 - Theft, corruption, violence are all important factors as to why avoid Mexico
 - Government and LEA programs already underway to mitigate some issues
 - Question as to whether Mexico can ever shed abysmal reputation?



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Approximate Areas Of Cartel Influence Over Business Operations In Mexico



Approximate Areas Of Cartel Influence Over Business Operations In Mexico





Recent Trends Of Mexican Cartels

- **Cartels and their associated businesses continue to thrive**
 - Drug interdiction has had minimal effect due to corruption in LEA
 - Some cartels “diversification” into cargo theft has been significant
- **Recently Gulf states (Tamaulipas and Veracruz) face high levels of cargo theft forcing companies to adopt costly new security measures**
 - Cargo drivers are now traveling in large convoys of up to 100 vehicles with federal police and military escort in order to help deter hijackings
 - Companies require truck drivers to install GPS and use security escorts
- **Cargo truckers subsequently pass-on the added cost of security measures to customers (resulting in higher shipping costs)**
- **Some companies use air or sea modalities to transport goods to the United States (avoid the risk of trucking theft)**



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Transit Security In Mexico Needs To Be “TSR’s On Steroids”

- **Physical security: truck/trailer security**
- **Security systems**
 - Communications, tracking/tracing, alarms
 - Vehicle immobilization controls
- **Security procedures**
 - Pre-alerts, collection, and delivery
 - Scheduled routing
 - Incident, event and action reporting (including escalation procedures)
 - Stops and secure parking
- **Personnel security**
- **Training**
- **Enhanced security requirements**





Managing Transit Risks – “Trip Management”

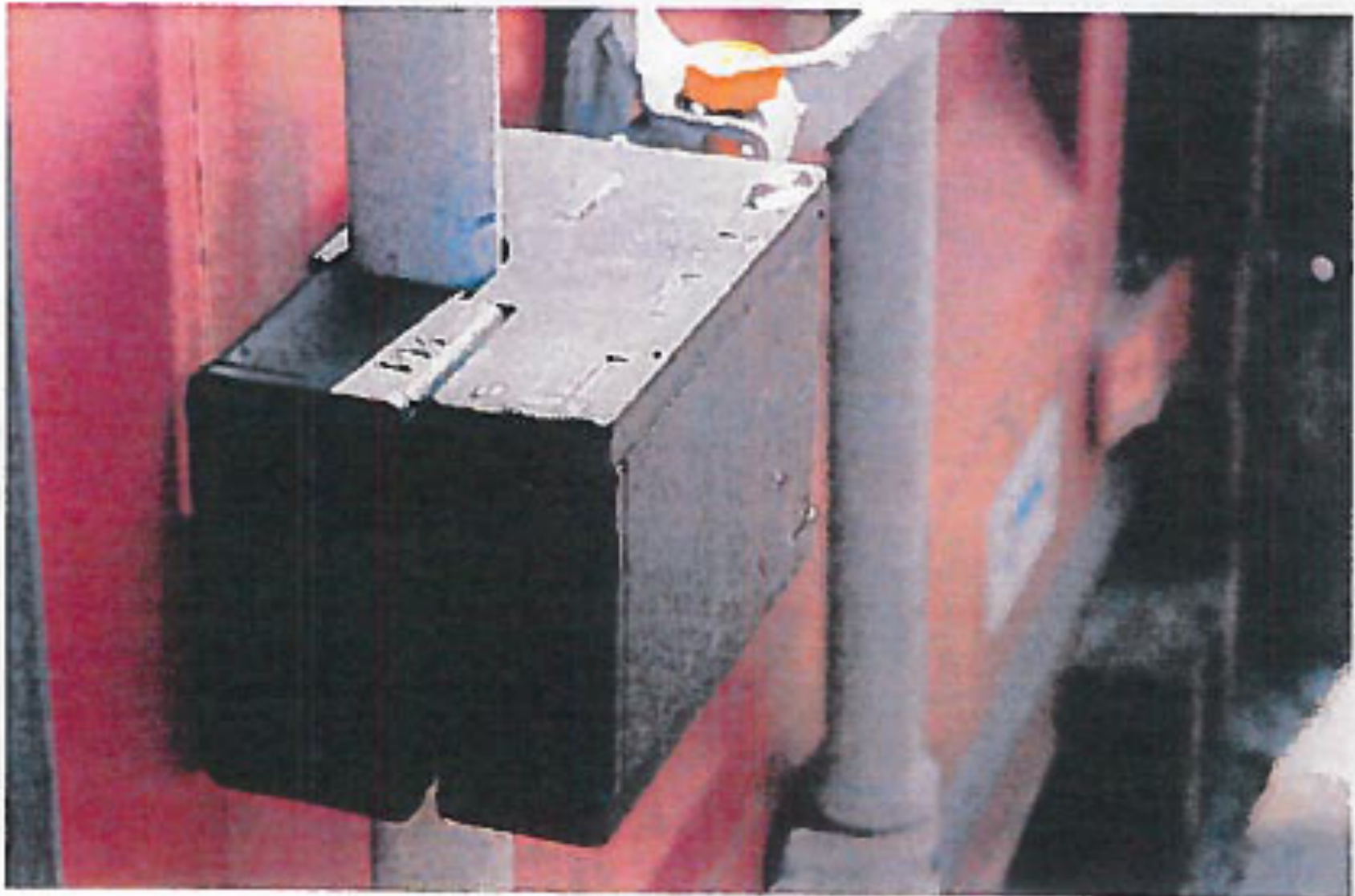
- **Driver qualifications**
 - Background checks using iterative verification processes
 - Rotational assignments diminish predictability
- **Dual drivers and an emphasis on no stopping**
- **Utilization of escorts (and consideration of “collaborative model”)**
 - Determination of “who is in-charge”: escort or trucker?
 - Communication protocols: who talks to whom and how
 - Tracking technologies utilized for truck monitoring and ability for geo-fencing
- **Route planning: specified and monitored**
 - All stops authorized at secured locations
 - Contingencies and alternative routing considered
- **Consideration of convoys**



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Robust Locking Mechanism Provides Deterrence And Security

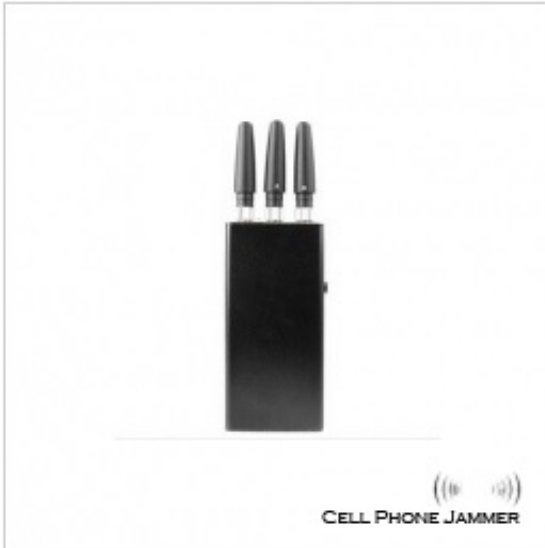


Thieves Utilize “Jammers” To Disable Tracking Technologies

- **Jamming devices are a reality**
- **Easy to execute inside truck**
- **Require a lot of power to operate**
- **Good jamming devices are multi-frequency and are not difficult obtain**
- **Important to understand tracking technology and propensity to be jammed**
 - Almost all digital signaling technology is susceptible (GSM, GPRS, CDMA)
 - RF signaling can be degraded but not eliminated
- **Alerts from the tracking system in case of system communication “failure” can minimizes jamming risk**



Handheld Cell Phone Jammer - 10 Metres [CJ2000]



Price: **\$35.70**
Model: Cell Phone Jammer [CJ2000]
Availability: **In Stock**
Shipping: Calculated at checkout
Rating: ★★★★★ 5 [4]

Cell phone and Wifi jammer [CRJ4000]



Price: **\$212.50**
Model: Cell phone jammer [CRJ4000]
Availability: **In Stock**
Shipping: Calculated at checkout
Rating: ★★★★★ 5 [6]
\$ Price match
Read reviews (6) Write a review



8 Antenna All in one for all GPS,WIFI,RF,Lojack,3G Cellular Jammer System



Price: **\$442.00**
Model: CELLJAMMER0068
Availability: **In Stock**
Shipping: Calculated at checkout



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Use Of Security Escorts – Philosophical Issues And Strategy

- **How to balance overt versus covert escort roles?**
 - Overt: typically can provide more preventative role against theft attempts
 - Covert: can operate with greater “stealth” if successful in avoiding detection
- **How to optimize overt escort’s role as deterrence?**
 - Vehicles are branded and visible (ie: well-known logos such as G4S)
 - Use of armed personnel that are noticeable and conspicuous
- **Sophisticated escorts often use “weaving/shuffling” processes**
 - Some escort services provide “weaving services” to avoid predictability
 - Other services utilize “matrix” structure to have vehicles in close proximity
- **What is the appropriate distance from escorted truck?**
 - Theft prevention: act as a deterrence to possible incident
 - Theft alert: act as “eyes on event” yet not caught in hijacking “net”



Use Of Security Escorts – Other Operational Issues

- **Role of centralized “control tower” for transit tracking**
 - Active (not passive) monitoring of all vehicles using geo-fencing software
 - “Scope of control” needs to be realistic (no more than 10-12 per person)
- **Escort guard behavior before, during, after transit**
 - Many theft attempts are aided by “inside information” and reconnaissance
 - Guards should be deployed in paramilitary manner during all phases to optimize deterrence effect
- **Ability to mobilize support vehicles for hijacking incident**
 - LEA in many geographies is unavailable/unreliable for incident response
 - Availability of support escort vehicles can be crucial during theft incident(s)
- **Escort services that use “wink and a nod” approach**
 - Some escort services will “manage risk” using unorthodox methods
 - Although problematic, these methods are most often quite effective



terior (Paseo de las Jacarandas)

Circuito Interior Bicentenario (Paseo de las Jacarandas)

1A Cda Pino

Pino

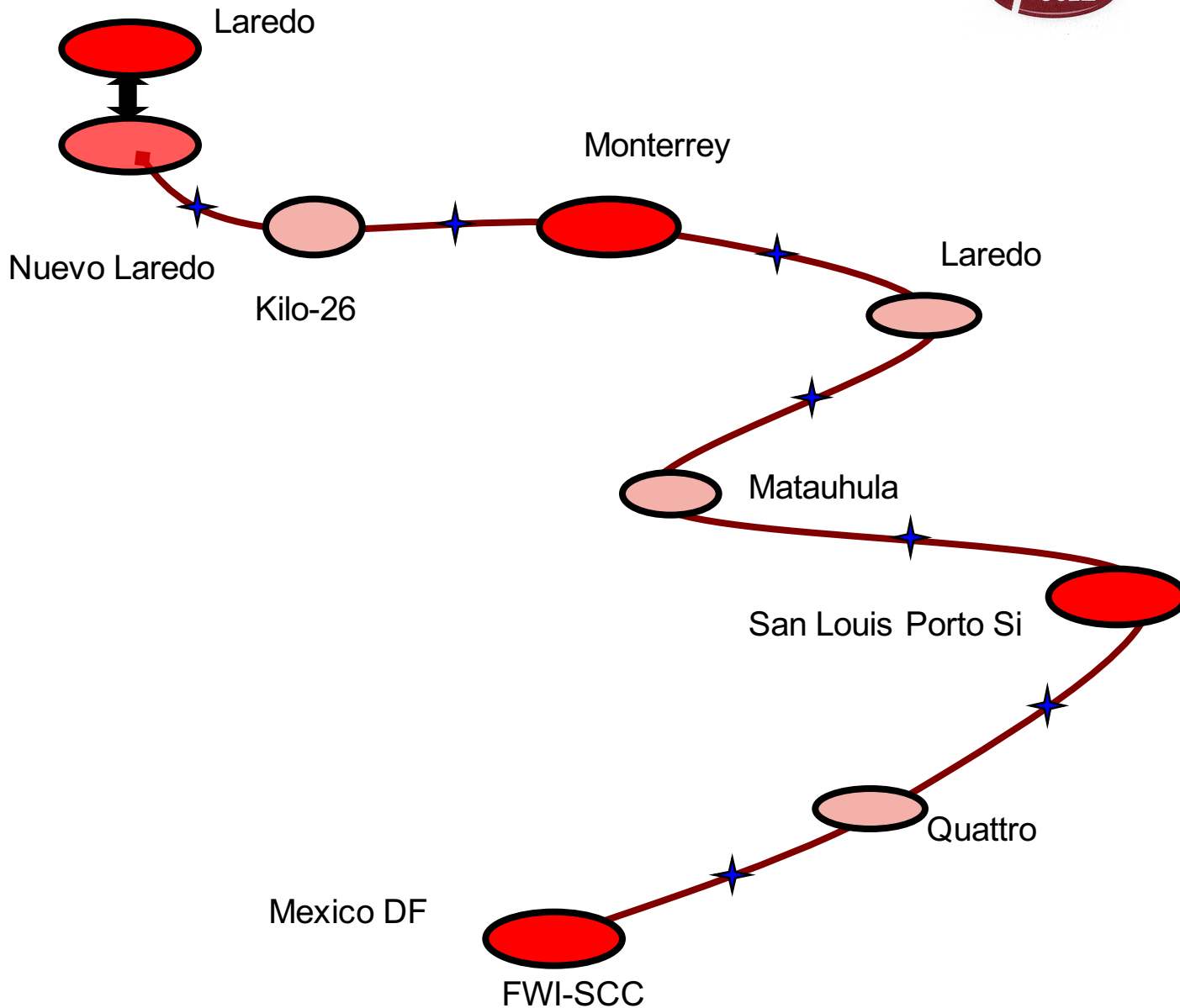
Calle 23

Guayabo

© 2015 Google



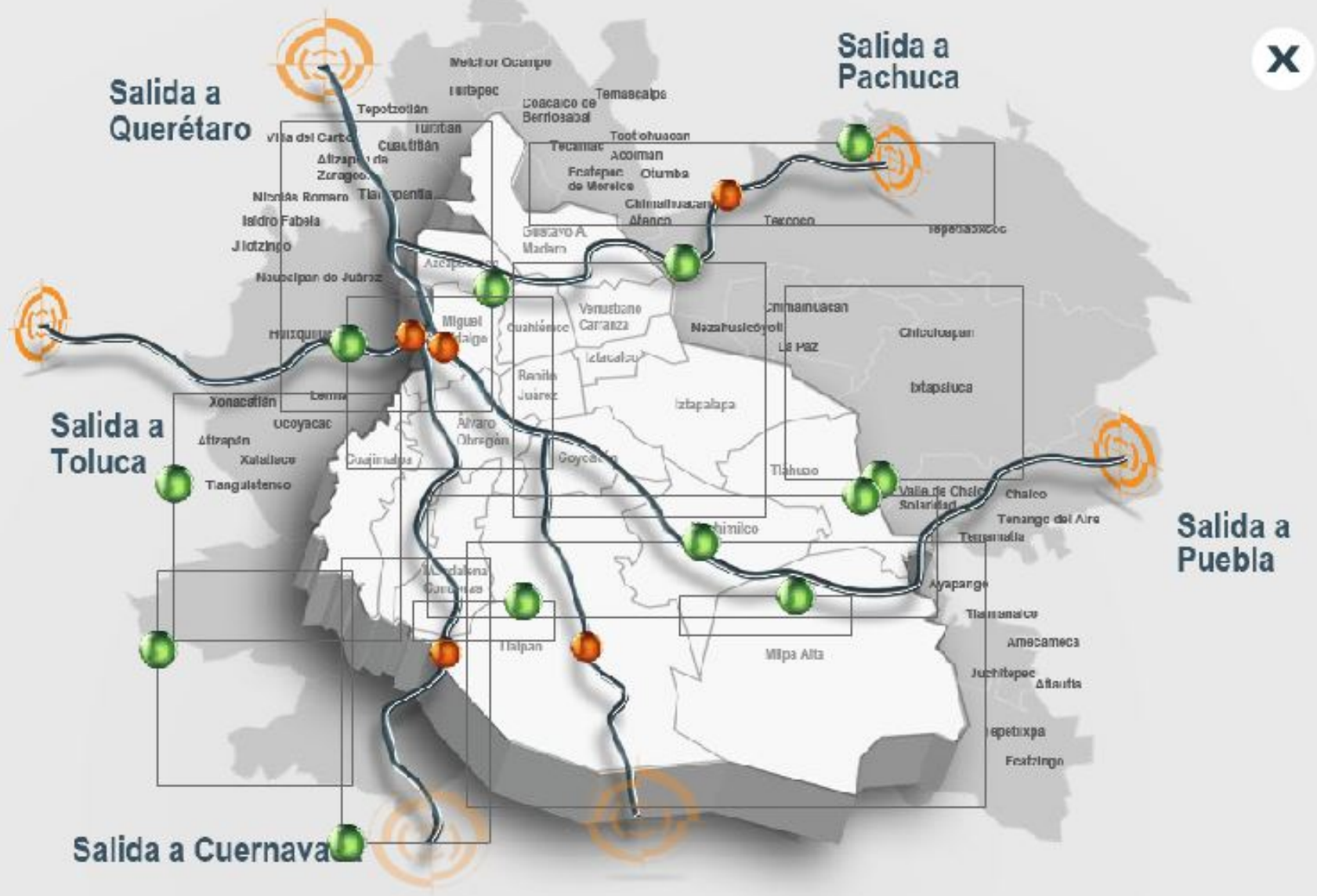
Secure Corridor Program



Key Factors

- *Forwarder Security Procedures*
- *Carrier SP & SAT*
- *Interview at point of departure*
- *Toll roads only*
- *Convoy managed by RMO*
- *RMO Escort*
- *RMO handshake flexible - not fixed!*
- *Compliance monitoring*
- *Direct contact with all tiers*





Salida a Querétaro

Salida a Pachuca

Salida a Toluca

Salida a Puebla

Salida a Cuernavaca



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Port Of Lazaro Cardenas



- **Western Mexico ports are crucial for trans-Pacific sea freight**
 - Manzanillo is currently the largest container port (2.6 million TEU's in 2014)
 - Lázaro Cárdenas is the second largest (1.2 million TEU's in 2014)
- **Port Of Lázaro Cárdenas is rapidly increasing capacity**
 - Facilities for general cargo, dry bulk, liquid bulk, and containerized cargo
 - APM Terminals' new Terminal Container 2 (TEC2) project
 - 750 meters of quay to accommodate two 350 meter vessels
 - Facility will open in 2016 with an annual throughput capacity of 1.2 million TEU's
 - Rail services to Mexico City (385 miles) using the Kansas City Southern de Mexico rail network



Estados Unidos

Michoacán

Oceano Pacífico

Golfo de México

Centro
América

Mexico City

Port Of Lazaro Cardenas



Risk Considerations From Port Lazaro Cardenas to Mexico City

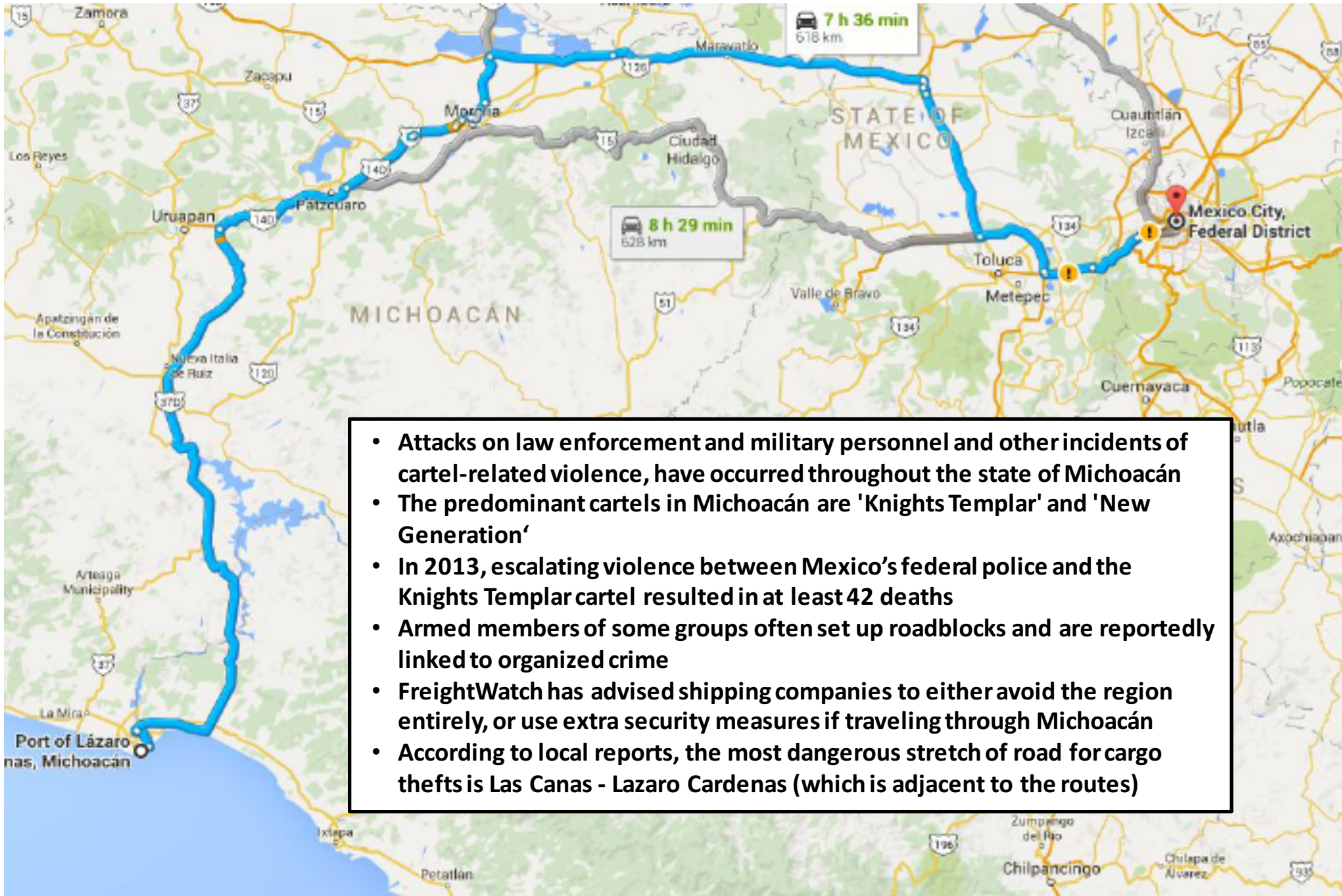
- **Consideration of trade-offs between transit alternatives**
 - Security risks of theft/hijacking
 - Time for journey (rail transit is typically three days)
- **Trucking considerations**
 - All road routes travel through states that have severe travel risk advisories
 - Theft risk is exceptional high due to high levels of crime and cartel activity
- **Intermodal alternative**
 - Rail route also passes through Michoacán and Guerrero regions
 - Owned by the railway company Kansas City Southern of Mexico
 - No reports of railway theft have occurred along the route
 - Speed of the trains and more
 - Stringent security measures taken by the railway company significantly mitigate the risk of cargo theft

Route Assessment From Port Lazaro Cardenas To Mexico City: Alternative A

- Route passes through the city of Coyuca de Catalan, which is under the control of the Los Guerreros Unidos cartel
- Coca-Cola closed a storage facility in Arcelia (2015) since four trucks were captured and burned by armed cartel members during 2014
- Other multi-national corporations and local businesses have closed operations in the state due to the increasing threats to employee safety
- The most dangerous region of Guerrero is the municipality of Chilapa de Alvarez and Iguala

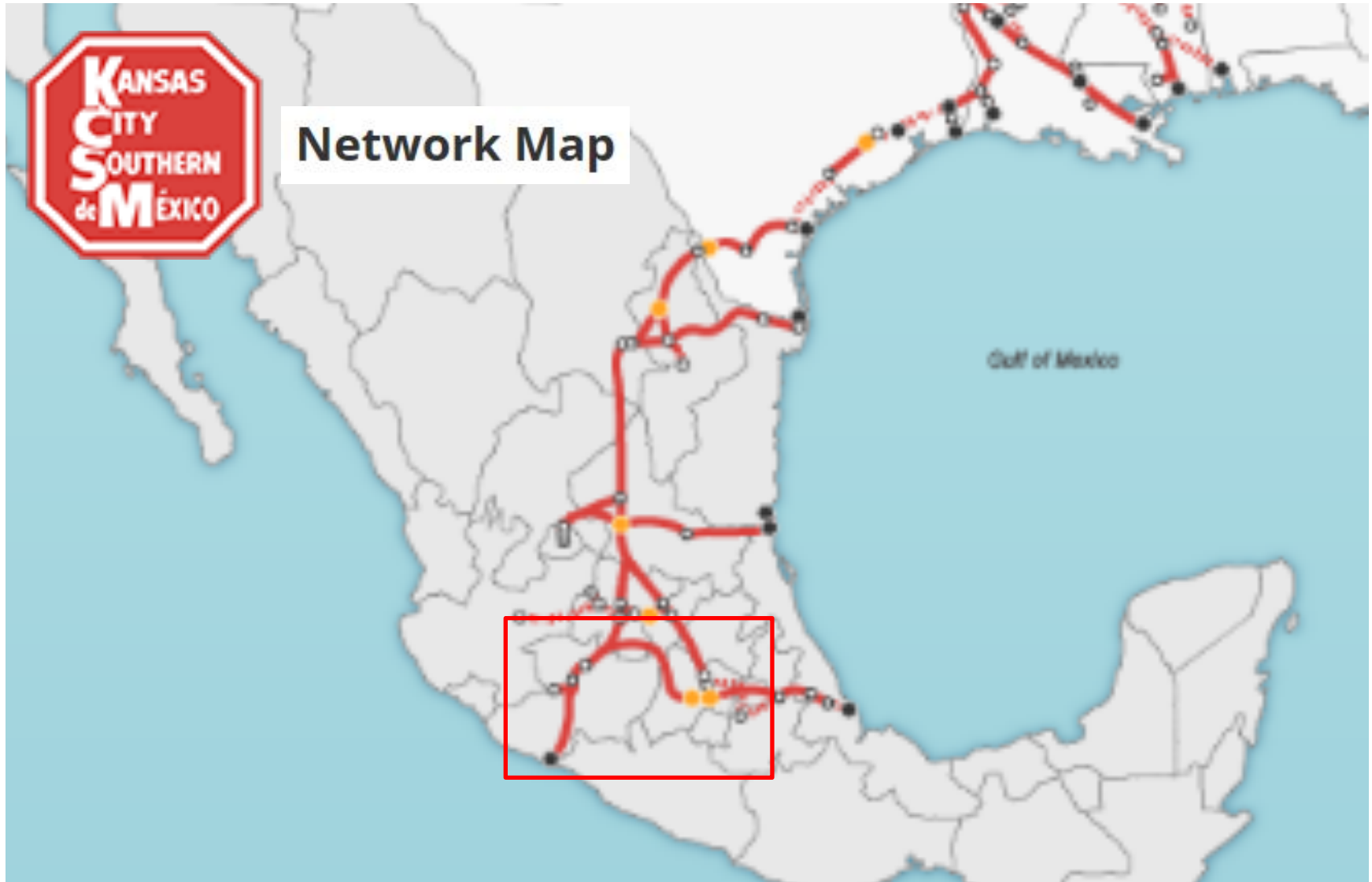


Route Assessment From Port Lazaro Cardenas To Mexico City: Alternatives B+C





Network Map



Secure Rail Freight Shipping At Kansas City Southern de Mexico

- **In Mexico, KCS-M employs multi-layered security process**
 - Security desk to track data and serve as a communications link (7x24)
 - Guards and canine units (guards on trains in high-risk areas)
 - Patrol vehicles secure rail terminals
- **Other enhanced security procedures in Mexico include**
 - Monitoring each KCS train (origin to destination) through multiple security filters
 - Passing trains through a VACIS scanning system
 - Laredo/Nuevo Laredo gateway
 - Port of Lazaro Cardenas
 - Monitoring train cars throughout the route using the rail inspection portals
 - Documenting the condition of the freight and its seals upon delivery
- **KCS is certified and validated in the Customs Trade Partnership Against Terrorism (C-TPAT) in both the United States and Mexico**

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