

Risk Analysis and Risk Management in the Supply Chain

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What Risks Exist

- Theft
 - Hijacking
 - “Truck Stop Shopping”
- Counterfeiting / Grey Market
- Terrorist Disruption
 - Port Disturbance
 - Airport Incidents
- Natural Events
 - Hurricanes
 - Tsunami
 - Earthquakes

FACTOIDS* from Our World

Interesting tidbits for water cooler conversations!

- **Organized crime** is estimated to account for 10% of the United States' national income.
- The United States has the highest **prison population rate** in the world (686 per 100,000 of the national population), followed by the Cayman Islands (664), Russia (638), Belarus (554), Kazakhstan (522), Turkmenistan (489), Belize (459), Bahamas (447), Suriname (437) and Dominica (420).
- More than 62.5% of countries have rates below 150 per 100,000.
- The United Kingdom's rate of 139 per 100,000 places it above the midpoint in the World List and the highest among countries of the European Union.
- Nearly 20% of all **vehicles stolen** had the keys in them.
- There are more **English speaking people** living in China than there are in the United States.

Is Hijacking a real threat in the Pharmaceutical Industry?

Business Name	Incident Date	Action	DOW	Weapon Type	Location
Wyeth Pharmaceuticals	7/21/2007	Cargo Theft	SAT	Not Armed/Unknown	Commerce, CA
Wyeth Pharmaceuticals	7/20/2007	Cargo Theft	FRI	Not Armed/Unknown	Richmond, VA
Johnson & Johnson	6/30/2007	Cargo Theft	SAT	Not Armed/Unknown	Polk County, Florida
Watson Pharma	6/17/2007	Cargo Theft	SUN	Not Armed/Unknown	Troy, Illinois
DDN Pharmaceuticals Logistics	6/15/2007	Cargo Theft	FRI	Not Armed/Unknown	Springfield, Missouri
GlaxoSmithKline	5/25/2007	Cargo Theft	FRI	Not Armed/Unknown	Earle , Arkansas
Cardinal Health	5/24/2007	Cargo Theft	THU	Not Armed/Unknown	Tolleson, Arizona.
McKesson's	5/7/2007	Cargo Theft	MON	Not Armed/Unknown	Temple, Georgia
DDN***	4/26/2007	Cargo Theft	THU	Not Armed/Unknown	Birthright, Texas
AmerisourceBergen Corp	3/1/2007	Attempted	THU	Armed Weapon Displayed	Channelview, TX
New Prime Trucking, Inc	2/23/2007	Cargo Theft	FRI	Not Armed/Unknown	Troy, Illinois
UPS	1/15/2007	Hijacking	MON	Armed Weapon Displayed	Niagra Falls, NY
AmerisourceBergen	11/18/2006	Hijacking	SAT	Not Armed/Force Used	Ontario, California
Metropolitan Trucking	11/15/2006	Attempted	WED	Not Armed/Unknown	Toledo, Ohio
Metropolitan Trucking	11/3/2006	Cargo Theft	FRI	Not Armed/Unknown	Girard, Ohio
Grace Transportation Company	10/28/2006	Cargo Theft	SAT	Not Armed/Unknown	Rogersville, TN
CR England Trucking	9/21/2006	Cargo Theft	THU	Not Armed/Unknown	Louisville, KY
Great American Lines Trucking	9/20/2006	Cargo Theft	WED	Not Armed/Unknown	Eddyville, KY
Metropolitan Trucking	9/9/2006	Attempted	SAT	Not Armed/Unknown	Hermitage, PA
Loadstar Trucking	8/9/2006	Cargo Theft	WED	Not Armed/Unknown	Reno, NV
Longistics	8/6/2006	Cargo Theft	SUN	Not Armed/Unknown	Raleigh, NC

Stolen trailer carrying an estimated \$4 million in pharmaceuticals recovered

By FAITH HUFFMAN | News-Telegram News Editor

Apr. 27, 2007 - Officers with the Hopkins County Sheriff's Office and an area auto task force were searching Friday morning for suspects who stole a trailer full of medications Thursday night.



Staff Photo by Angela Pitts

Hopkins County Sheriff's Investigators Jace Anglin and Lewis Tatum, and auto theft task force investigators Jeremy Massey and John Murphy with the stolen trailer carrying \$4 million in pharmaceuticals that was recovered today.

The trailer was recovered around 1:30 this morning in Rains County with \$4 million worth of pharmaceuticals still inside. Sheriff's officers at 8:10 p.m. Thursday were told that a white 18-wheeler had just been stolen from Joe Bob's North on State Highway 19 in Birthright. Sgt. Victor Cosme responded and then contacted sheriff's Investigator Lewis Tatum, who then got in touch with East Texas Auto Task Force Investigator Jeremy Massey and Sgt. John Murphy with an auto task force out of Garland.

Cargo Hijacking



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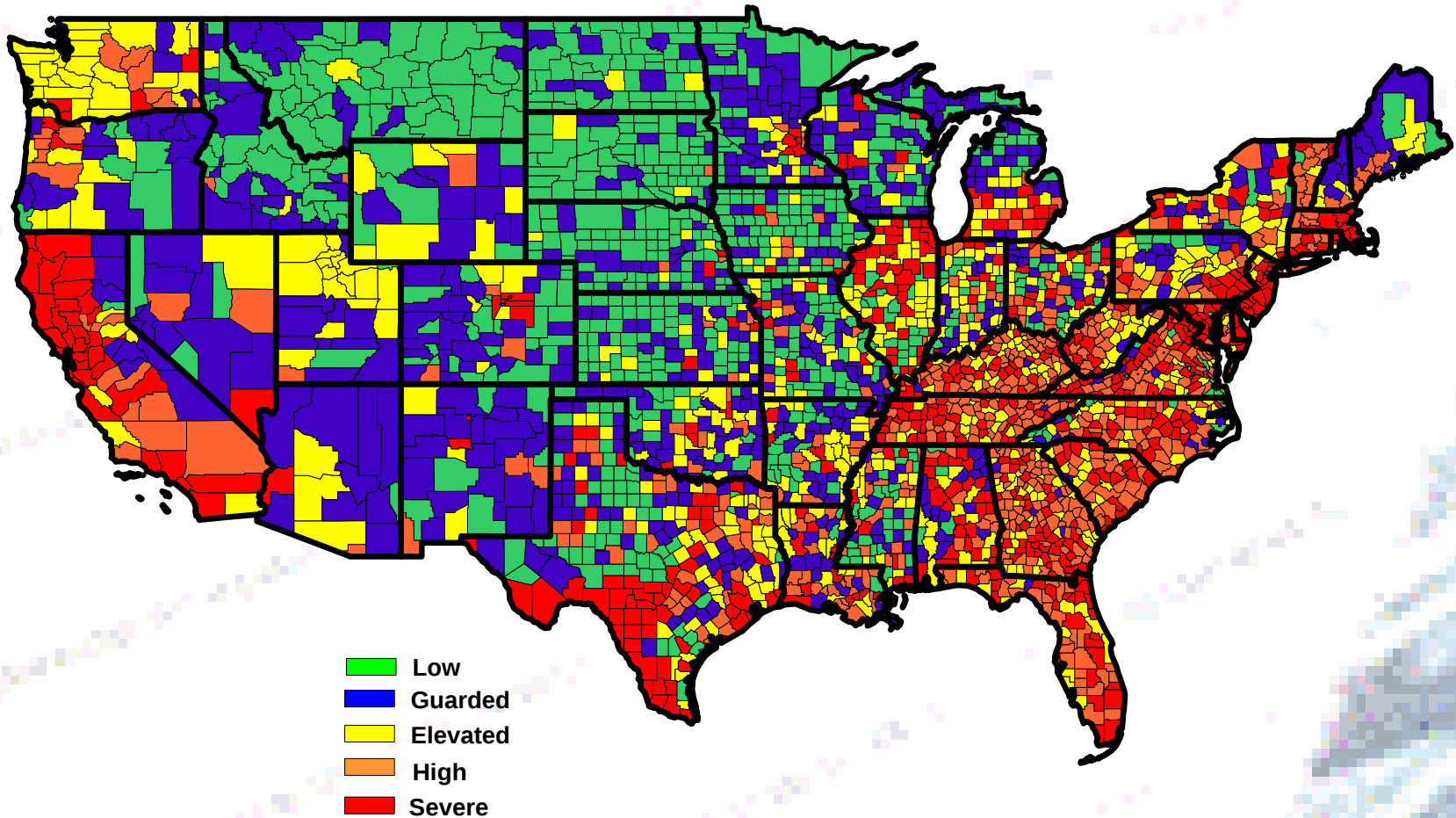
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FTL Theft - Reported by County

- Graphic illustrates FTL theft, by State and County reported to law enforcement over the past 4 years.
- Incidents of theft by county do fluctuate due to the mobile nature of this crime.
- Hot-spots tend to concentrate around clusters of truck-stops and high density of Manufacturing/Distribution Center locations



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Threat Analysis

Country	Terrorism/Insurrection	Crime
Brazil	2	6
Mexico	4	6
Hong Kong	3	6
US	4	2
India	6	6
France	2	3
Spain	2	3
Italy	2	4
UK	3	2
China	3	5



Government Supply Chain Security Programs

- C-TPAT
 - Supply Chain Security Specialist Assigned
 - Ongoing responsibilities
 - Tier 3
 - Safe Port Act: Advanced Data / Business Resumption
 - Enhanced program requirements
 - Annual Review
 - Site and third party audits
 - Training
 - Advisory Council
 - Great model for global programs
 - Mutual recognition is the goal in the international community

Government Supply Chain Security Programs

- International Programs
 - EU – AEO program
 - Canada (Partners in Protection)
 - Australia / New Zealand
 - Others coming
- US Federal Programs
 - DOT
 - TSA
 - SFI
 - FDA
 - CSI
 - Business Resumption

International Programs

Program / Organization Name	Country
Authorized Economic Operators (AEO)	European Union Members
Customs Trade Partnership Against Terrorism (C-TPAT)	United States
Free and Secure Trade (FAST)	United States & Canada
Frontline	Australia
International Shipper and Port Facility Security (ISPS)	United States
International Organization of Standards (ISO/PAS 28000)	Global
Partners in Protection (PIP)	Canada
Security Export Partnership	New Zealand
Stairsec	Sweden
Technology Asset Protection Association (TAPA)	Global
Program under development	Singapore
World Customs Organization (WCO SAFE Framework)	Global

Risk Reduction:

Total Security Management Concept

- a) The organization is positioned for the realities of the global trade environment.
- b) The total value chain is highly visible.
- c) The rewards of long term resiliency is recognized by our management
- d) All value chain partners must be involved in the solutions within our security programs

Tactical Tools of TSM

- The 4 Value Chain V's
 - Visibility: what do you have in the supply chain, where is it, when does it depart/arrive
 - Variability: control of those things you don't want to vary, and those you do
 - Velocity: products in motion tend to be safer
 - Vulnerability: reduction by minimal exposure, good controls, sound procedures (both ours and our 3PLs)

Tactical Tools of TSM

- The 4 Security D's:
 - Deter: prevent a discontinuous event from ever happening
 - Detect: early warning and response plans are critical, awareness and communication
 - Delay: delaying the event until help arrives, be it thefts in progress or shipments into bad weather.
 - Dispatch: have a response planned in the event of an incident; a quick response can prevent or recover material quickly.

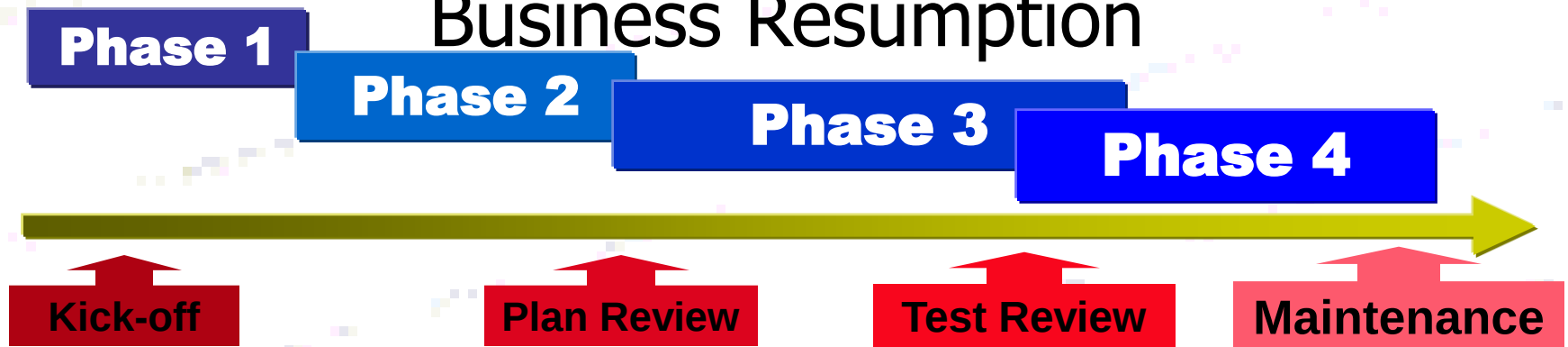
Tactical Tools of TSM

- The 4 Solution Set C's:
 - Coordination: alignment of mutual business goals and imperatives
 - Cooperation: builds the essential element of trust among all the value chain partners
 - Consultation: provides the opportunity to resolve minor issues before become major vulnerabilities
 - Collaboration: the implementation of mutually beneficial solutions

Planning for Risk Prevention

- Security Plan
 - Standards of Care
 - Realistic
 - Effective
 - Enforceable
- Business Continuity
 - Planning
 - Resource Management

Planning Phases of Business Resumption



Phase I - Requirements & Design: Fact finding and analysis. “Business Impact Analysis and Risk Assessment”. Determine recovery strategies, costs, and secure management approval/funding.

Phase II - Plan Development: With the selected strategy, develop and document recovery plans, order and install any hardware necessary to support the strategy. Build scenario based recovery plans and arrange for any associated recovery support services.

Phase III - Testing: Development and execution of test plans/exercises to verify the recovery plan(s). Report issues and action items arising from tests and perform mitigation activities. Acceptance and signoff of the plans. Plan to test annually.

Phase IV – Implementation: Establishment of an on-going Change Controlled Maintenance mode. DR/BC links to Change Control System.

Questions?

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