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CARGO SECURITY AND PREVENTING **THEFT** IN TRUCKING

WHITEPAPER



CARGO SECURITY AND PREVENTING THEFT IN TRUCKING

The trucking industry, integral to global supply chains, is under constant threat from cargo theft, a serious and growing problem with substantial financial and operational implications. Theft occurs at various stages in the transportation process—while goods are in transit, at terminals, or during overnight stops—causing millions of dollars in losses annually.

This whitepaper outlines how motor carriers can implement a layered security approach to prevent theft, reduce vulnerabilities, and safeguard cargo on the road and at terminals. It covers the importance of physical security, technological solutions, operational protocols, and employee training, as well as key best practices and common theft hotspots. By adopting a proactive, multi-layered approach to cargo security, motor carriers can improve safety, protect assets, and ensure the smooth operation of their supply chains.

INTRODUCTION

The trucking industry faces an increasingly complex threat environment, where cargo theft is a persistent concern. According to the National Insurance Crime Bureau (NICB), the trucking sector experiences significant theft-related losses, including the theft of high-value goods such as electronics, pharmaceuticals, and food products. In addition to direct financial losses, thefts can lead to delayed deliveries, diminished customer trust, and reputational damage.

Motor carriers must adopt an integrated, multi-layered security approach to mitigate the risks associated with cargo theft. A layered security strategy employs various tactics that work together to prevent theft at every stage of transportation, from the terminal to the road. It involves a combination of physical security, technology, employee training, and operational protocols that ensure the safety and integrity of the cargo throughout the entire supply chain.



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THE SCOPE OF CARGO THEFT IN THE TRUCKING INDUSTRY

Cargo theft occurs in many forms and at various stages of the supply chain. Understanding where theft is most likely to occur and how it happens is crucial for developing effective security measures.

WHERE THEFT OCCURS

- **AT TERMINALS AND WAREHOUSES:** Many thefts occur during the loading and unloading process. Insufficient security measures, such as poorly lit areas, lack of surveillance, and unsecured doors or gates, provide opportunities for criminals to access goods.
- **WHILE CARGO IS IN TRANSIT:** Trucks are especially vulnerable while on the road. Thieves often target vehicles during rest stops, overnight parking, or when trucks are left unattended. Thieves may also use decoy vehicles or fraudulently reroute cargo by intercepting shipments.
- **AT TRUCK STOPS AND REST AREAS:** Cargo theft is more common at truck stops and rest areas where vehicles are left unattended for extended periods. In these instances, thieves may break into trucks parked in isolated areas or use distraction techniques to steal cargo.
- **DROP YARDS AND PARKING LOTS:** Insecure parking lots or drop yards, where trucks are parked overnight or waiting to load/unload, present prime opportunities for theft due to reduced surveillance or security personnel.

The prevalence of theft at these locations highlights the need for comprehensive security measures that address vulnerabilities at all stages of transport.

A LAYERED SECURITY APPROACH TO CARGO THEFT PREVENTION

A layered security approach consists of multiple defense mechanisms designed to prevent, deter, and respond to theft. By employing various strategies that address different vulnerabilities in the supply chain, motor carriers can strengthen their overall security posture.

ATTENTION

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1 PHYSICAL SECURITY MEASURES

VEHICLE AND TRAILER LOCKS: Strong, high-quality locks are essential in preventing unauthorized access to trailers. Kingpin locks and air cuff locks are simple, effective deterrents to thieves. These devices are especially useful for preventing unauthorized coupling and uncoupling of trailers while in transit or during stops.

IMMOBILIZATION DEVICES: In addition to locks, immobilization devices such as wheel boots or tracking systems can prevent vehicles from being moved without authorization. Immobilization systems provide an extra layer of protection when trucks are parked or during overnight stops.

SECURE PARKING FACILITIES: Ensuring that trucks are parked in secure, well-lit areas is critical. Truck stops or facilities equipped with security gates, fencing, and surveillance cameras are essential for reducing theft risks. Motor carriers should prioritize using secure parking areas whenever possible, especially during overnight stays.

PHYSICAL BARRIERS AT TERMINALS: Terminals should implement physical barriers such as perimeter fencing, reinforced gates, and access control points. These measures limit access to critical areas and reduce the opportunity for unauthorized personnel to enter and steal cargo.

LIGHTING AND SURVEILLANCE: High-quality lighting, along with CCTV surveillance systems, increases visibility and deterrence. Surveillance cameras should be installed at strategic locations such as entrances, exits, and loading docks to capture footage of criminal activity. In some cases, the mere presence of surveillance cameras can be a strong deterrent.

2 INNOVATIVE TECHNOLOGY SOLUTIONS

GPS TRACKING: GPS tracking systems allow motor carriers to monitor the real-time location of their vehicles and cargo. These systems not only help drivers navigate but also enable dispatchers to track shipments and respond quickly in the event of a theft. If a theft occurs, tracking technology allows law enforcement to recover stolen goods and apprehend perpetrators.



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TELEMATICS SYSTEMS: Advanced telematics solutions provide more than just GPS tracking. They can also monitor critical vehicle performance, driver behavior, and cargo conditions. Some systems can alert the carrier if a trailer is being tampered with, if the cargo has been opened, or if a vehicle deviates from its planned route.

CARGO SEALS AND SENSORS: Seals are widely used to secure cargo doors and prevent unauthorized access. Advanced security seals are equipped with sensors that can detect tampering. If a seal is broken, the system immediately sends an alert, which helps prevent theft and track any tampering with the cargo.

ELECTRONIC LOGGING DEVICES (ELDs): ELDs, which record driving hours and vehicle location, can serve as an additional layer of security. By monitoring driver behavior and ensuring compliance with legal driving hours, these systems can help prevent driver fatigue and unauthorized detours.

RFID TECHNOLOGY: Radio Frequency Identification (RFID) tags can be used to monitor cargo movement. These tags help track goods within the supply chain and verify that cargo remains secure during transit and storage.

3 OPERATIONAL AND PROCEDURAL SECURITY

DRIVER TRAINING: Educating drivers about the security protocols they must follow is one of the most effective ways to reduce cargo theft. Drivers should be trained on how to secure cargo properly, how to identify suspicious activity, and how to handle situations where they might be at risk of theft. Training should also cover the importance of maintaining strict communication with dispatchers and reporting any security breaches immediately.

BACKGROUND CHECKS FOR EMPLOYEES: To mitigate the risk of insider theft, motor carriers must conduct thorough background checks on all employees, including drivers, warehouse workers, and other personnel with access to cargo. Criminal background checks, employment history verification, and drug screening are essential components of a secure workforce.



STANDARD OPERATING PROCEDURES (SOPs): Establishing clear, comprehensive SOPs for every stage of the cargo handling process, from loading and unloading to in-transit security, ensures that employees follow consistent, secure practices. This reduces the chances of theft due to negligence or misunderstanding.

ROUTE PLANNING AND RISK ASSESSMENT: By analyzing historical theft patterns and assessing risk levels, motor carriers can design safer, more secure routes. High-crime areas or regions with a history of theft should be avoided when possible, and drivers should be instructed to follow specific protocols when passing through known hotspots.

CARGO INSPECTION AND DOCUMENTATION: Regular inspections and detailed documentation of the cargo before departure can provide essential evidence in case of theft. Documentation should include photos, serial numbers, and any other identifying marks on high-value goods. Inspections should also be carried out at various points during transit to ensure that the cargo remains secure.

4 COLLABORATION WITH LAW ENFORCEMENT AND INDUSTRY PARTNERS

ENGAGEMENT WITH LAW ENFORCEMENT: Building relationships with local law enforcement agencies can help motor carriers stay informed about crime trends and quickly respond to theft incidents. In addition, participating in regional security councils enables trucking companies to collaborate with authorities to reduce crime in key areas. There are numerous security councils that maintain a cooperative partnership of private industry and law enforcement personnel to combat organized crime against trucking companies.

SHARING INFORMATION ACROSS THE INDUSTRY: Industry collaboration is essential for staying ahead of emerging threats. Motor carriers should engage with industry groups to share information about theft trends and best practices. Sharing intelligence about theft tactics can help all parties involved and better prepare for and prevent future thefts. Many state trucking associations have dedicated security committees that function as regional security councils within their state boundaries.



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5 BEST PRACTICES FOR CARGO THEFT PREVENTION

To enhance cargo security, trucking companies must implement best practices that incorporate both proactive and reactive measures.

- **CONDUCT REGULAR SECURITY AUDITS:** Regularly auditing security systems and procedures helps identify vulnerabilities in both physical infrastructure and operational protocols. These audits should include reviewing access points, technology systems, employee training, and incident response plans.
- **ADOPT TECHNOLOGY-DRIVEN SOLUTIONS:** Leveraging GPS, RFID, and telematics systems enhances cargo visibility and security. When used together, these technologies enable real-time tracking and help prevent unauthorized access.
- **INCREASE SECURITY DURING VULNERABLE TIMES:** Trucks are most vulnerable during overnight stops or long-duration parking. During these times, security measures should be heightened using secured parking facilities, surveillance systems, and continuous monitoring.
- **ESTABLISH CLEAR COMMUNICATION PROTOCOLS:** Clear lines of communication between drivers, dispatchers, and security personnel are essential. Regular check-ins and emergency response plans should be in place for when a theft or security breach occurs.

6 BEST PRACTICES FOR CARGO THEFT PREVENTION (ON-SITE)

Each trucking terminal should maintain a site-specific loss prevention and security program that evaluates the location, facility structure, and historical theft data to determine the appropriate security levels. The larger less-than-truckload (LTL) carriers each have approximately 250 locations, but each location should have its own security program. As an example, a large terminal in Los Angeles may require security guards, CCTV, and an alarm system as opposed to a smaller terminal in rural Wyoming that requires an alarm system only.



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Basic security layers may include the following:

- High-definition CCTV system with minimum 60 days of retention,
- Reputable security officers,
- Perimeter alarm systems with motion sensors and video detection,
- LED lighting in the yard, and/or
- Perimeter fence with gate-controlled access.

Security professionals should conduct annual inspections at each terminal in addition to unannounced inspections. Furthermore, consider collaborating with local trucking companies to obtain relevant information about current trends.

7 SECURITY INSTRUCTIONS FOR LOADED TRAILERS

- All loaded outbound and inbound trailers must be locked during closed hours. In high-risk areas, loaded trailers should also be backed to the dock, another trailer, or another barrier. Units with roll-up doors must be padlocked and backed to each other or another barrier that will not allow access to the door.
- Trailers with security-sensitive freight and security trailers must be locked with a padlock. The trailer should be backed against the dock if equipped with swing doors or backed against another trailer if equipped with an overhead door. Kingpin locks should also be placed on all security-sensitive loads and security trailers.
- All loaded trailers, inbound, outbound, trap, storage, etc., during closed hours or otherwise left unattended will be secured by one or more of the following methods to adequately protect the freight.
 - Padlocked
 - Butted
 - Docked
 - Blocked
- All loaded pickup and delivery trailers and straight trucks will have the cargo box locked when away from the terminal, except when loading or unloading freight.



- Trailer seals will be used on all loaded trailers closed for road dispatch. Seals are the most common means for load security. Only the designated supervisor should have access to the seal supply. A distribution log should be maintained. All drivers must check the conditions of the seals before departing, and at every stop made en route.
- The integrity of cargo seals must be checked before signing for trailers received from the rail yard or other carriers. The seal number must be recorded, and any discrepancy must be noted and reported to a supervisor immediately.

8 SECURITY INSTRUCTIONS FOR CITY DRIVERS

- Verify the load before leaving the service center. Check the bills against the manifest.
- Stay on schedule and on the proper route. Arrange a communications schedule with the dispatcher to keep her/him informed.
- While on the street, the trailer must be properly secured with a company padlock at all times except when loading or unloading.
- Keep doors locked and windows rolled up as far as possible when on city routes.
- When parked on the street or at a customer location, the engine must be turned off, ignition key removed, windows rolled up, and doors locked.
- While at a customer's location, remain security conscious. Do not leave the truck unattended longer than necessary. No unauthorized persons are allowed in the truck.
- Pay attention to loading and unloading. Do not leave freight on the street unattended.
- Delivery of freight should be to the proper party and at the address shown on the delivery receipt.
- If the freight you are handling is suspicious in nature or is labeled or described erroneously, contact a supervisor immediately.



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- Never discuss the nature of the cargo in transit with anyone not authorized to access the information.
- When leaving truck unattended while on break, the truck should be parked in an area that is easily observed with adequate lighting. The engine must be turned off, ignition key removed, windows closed, and doors locked. Check the trailer seal and/or padlock on the trailer when returning to the truck to ensure that it has not been tampered with.
- Always be aware of your surroundings. If you observe anyone suspiciously following you or wandering around the dock, break room, service center, or your assigned unit, contact a supervisor immediately.
- Upon pickup of security-sensitive shipments, contact your dispatcher for security instructions.
- Report all theft, attempted theft, and suspicious shortages immediately to your supervisor.

9 SECURITY INSTRUCTIONS FOR ROAD DRIVERS

- Verify the correct units for the assigned dispatch prior to leaving the service center.
- Check the cargo seal and/or padlock on all loaded trailers during pre-trip inspection and after being away from the truck during dispatch to ensure that they have not been tampered with. Notify your supervisor of any discrepancy.
- When leaving truck unattended at a closed service center or relay station, the engine must be turned off, ignition key removed, windows closed, and doors locked. The ignition key should be placed with the manifest in the designated place for that service center or relay station.
- When leaving truck unattended while on break, the truck should be parked in an area that is easily observed with adequate lighting. The engine must be turned off, ignition key removed, windows closed, and doors locked. Check the trailer seal and/or padlock on the trailer when returning to the truck to ensure that it has not been tampered with.



By implementing these recommendations, motor carriers can create a secure, resilient trucking operation capable of reducing theft and enhancing overall supply chain security.

- Immediately report any breakdown or other reasons for delay.
- Never discuss the nature of the cargo in transit with anyone not authorized to access the information.
- Stay on schedule and on the proper route. Arrange a communications schedule to keep your dispatcher informed.
- When rest stops are necessary, park in areas where other motorists are present.
- During dispatch or when arriving at a service center, be aware of the surroundings and report anything suspicious/unusual, such as suspicious vehicles or persons, unlocked gates, open loaded trailers, open dock doors, etc.
- Keep doors locked and windows rolled up as far as possible during dispatches.
- If dispatched to a service center that has a security alarm system, be aware of the operational functions of the system. If unsure how to operate the system or if the system is not operating correctly, notify a supervisor immediately.
- No unauthorized persons are allowed in the truck.
- Report all theft and attempted theft immediately to your supervisor.

CONCLUSION

Cargo theft in the trucking industry remains a significant threat to the safety and efficiency of global supply chains. To mitigate these risks, motor carriers must adopt a layered security approach that incorporates physical security, advanced technology, robust operational protocols, and comprehensive employee training. By understanding where and how theft occurs, and implementing best practices at each stage of transportation, carriers can minimize their exposure to theft and ensure the protection of valuable cargo.

The layered security strategy not only acts as a deterrent but also provides an effective response mechanism should a theft occur. By working with industry partners, law enforcement, and leveraging technological innovations, the trucking industry can significantly reduce the financial and reputational costs of cargo theft.

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Josh Lovan, Industry Business Advisor, is a seasoned professional with a diverse 15-year tenure in the transportation industry. Josh brings a wealth of expertise to the table. As a former Director of Safety & Security for a prominent carrier, he handled accidents, injuries, OSHA compliance, hazmat, and security protocols. Josh also has extensive experience working with Risk Management and Legal departments in trial preparation and depositions.

Josh started at J. J. Keller & Associates, Inc., in 2021 and specializes in hours of service, hazmat, injury prevention, security, and motor carrier safety management. His background as a detective in law enforcement undercover operations also aids in providing our motor carrier customers with security tips and advice.

Josh is a sought-after speaker at various associations and councils, where he shares his extensive knowledge. Josh also presents a variety of topics at J. J. Keller® live events.

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