

Confronting Threats To Agricultural and Food Transportation: Using Fleet Management Technology to Reduce Risk and Optimize Operations



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Our common challenge

Finding the right balance between:

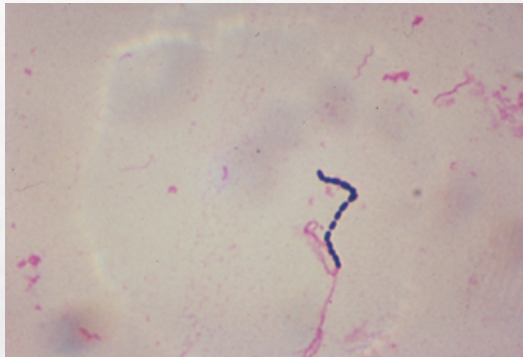
- Mitigating risk in order to maintain the integrity of food supply.
- Economically managing the transportation of agricultural and food products as part of the food supply chain.



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We have all contemplated the “What If....?” scenarios



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Defining the threat

A range of threats - Impact:

- People
- Property
- Products
- Processes
- Information
- Information Systems



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Food security vs food safety

Objectives

- Protecting the nation's food supply from intentional biologic, chemical, physical, nuclear and other forms of contamination.
- Food security differs from food safety because it focuses on the *intentional* rather than the *accidental*.
- For food transporters, it means securing products/cargo, personnel and mobile assets.



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Key security threats

- **Bio-terrorism**
- **Theft**
- **Hijacking**
- **Introduction of foreign substances**



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Key safety concerns

- Hijacking
- Spoilage due to temperature, moisture, and/or contaminants
- Driver behavior/Speeding/Hazardous Driving
- Equipment structural integrity
- Collision



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What's the best technology fit for food and agricultural transporters?

- Range of technology to address safety, security and other issues confronting agricultural and food transporters.
- Available at a range of price points and functionality.
- Need to evaluate best fit for organization based on vulnerability assessment and other operational issues.



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FMCSA evaluation

- Federal Motor Carrier Safety Administration (FMCSA) field operational test identified technologies to enhance the safety, security, and efficiency of hazmat transportation.
- Similarities to agricultural and food transportation can be drawn - both are **high risk commodities** in terms of their impact on national security.



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FMCSA Technology Evaluation Results

- The technologies showed the capability to reduce the vulnerability of hazmat transportation, with the greatest reductions for theft.
- GPS tracking provided a positive return on investment.

Source: FMCSA



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Cost benefit analysis - FMCSA

Results

- Using the technologies over a 3-year period would lead to a tremendous societal cost savings.
- The combined benefit-cost analysis showed positive benefit-cost ratios from a low of 1.4:1 to a high of 96.9:1.
- The evaluation indicated that motor carriers would realize a varying percentage of the overall benefits.

Source: FMCSA



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TSA hazmat truck security pilot

- TSA is further researching telematic to test near real-time tracking to prevent unauthorized operation of trucks and unauthorized access to their cargos.
- Safefreight is currently the standalone supplier on a universal communications interface to the TSA Truck Tracking Center.
- Oakridge Labs, Battelle and SAIC Advanced Locator (AVL) studies.



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Telematics and the transportation of high risk goods

- Like hazmat, food and agricultural products are high risk goods in terms of security implications.
- Telematics provides “one stop” resolution to managing security, safety and operational challenges.



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Securing tractors and trailers with telematics

1. Enables a security protocol.
2. Provides immediate alert to any web-enabled device in the event of:
 - Unauthorized trailer/vehicle entry
 - Temperature variances
 - Many other customer defined rule violations
3. Deters criminals from gaining entry to conveyances and tampering with or stealing cargo.



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Securing drivers with telematics

- Panic buttons support driver safety and security when emergency situations arise.
- Onboard sensors alert you to speed, seatbelt and other violations.
- Two-way incab text communicator.



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How can telematic technology support agricultural and food transporters?

- 24/7 situational awareness.
- Can mitigate *intentional* and *unintentional* threats
- Cost of security offset by cost reductions in optimizing operations.
- Tighter management of total supply chain.



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Thank You

Q&A

For more information please contact:

James Balestra

Safefreight Technology

8000 N.E. Parkway Drive, Suite 200, Vancouver, Washington, USA, 98662

1 866 891 3999

www.safefreight.com



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