Confronting Threats To Agricultural and Food Transportation: Using Fleet Management Technology to Reduce Risk and Optimize Operations
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.
We have all contemplated the “What If….?” scenarios

Pictures courtesy of USDA
Defining the threat

A range of threats - Impact:
- People
- Property
- Products
- Processes
- Information
- Information Systems
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.
Key security threats

- Bio-terrorism
- Theft
- Hijacking
- Introduction of foreign substances
Key safety concerns

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

Q&A

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