

Paperless Hazard Communications Pilot Program (HM-ACCESS)

Mark E. Raney
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US DOT / Volpe Center



Agenda

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- **Ongoing Activities**
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Objective

- **Goal:** Evaluate the feasibility and effectiveness of paperless hazardous materials (e-HM) communication systems (e-systems) to provide a level of safety equivalent to or better than the current HM shipping paper requirements.
- **Intent:** For all transportation modes, study the performance, safety, and security impacts, and the associated benefits and costs, of using e-systems for communicating HM shipping paper information.



Potential Benefits

Allowing HM shippers and carriers to communicate HM shipping paper information electronically may:

- **Improve the availability and accuracy of hazard and response information for shipments and packages.**
- **Improve the speed and accuracy by which information is available to emergency responders.**
- **Improve the security of imported containers through better knowledge of shipments.**
- **Enable U.S. companies to compete more effectively in the global economy by using the best tools available.**



Moving Ahead for Progress in the 21st Century Act (MAP-21)

Three major phases of MAP-21:

- First, PHMSA needs to consult with HM stakeholders, including Federal and State authorities, emergency responders, law enforcement, and the HM industry, specifically shippers and carriers.
- Second, PHMSA needs to test the performance of e-systems and evaluate potential impacts, including conducting at least one pilot test within a rural area.
- Third, a feasibility and assessment report needs to be prepared for the Secretary to provide to Congress.



Accomplishments To-Date

Consulted with HM stakeholders on operational and technological requirements for implementing e-systems across all modes:

- **Conducted data gathering with 90+ individual HM stakeholders.**
- **Held workshops with stakeholders to verify their needs and obstacles to implementing e-systems.**
- **Drafted information papers highlighting the collective HM transportation community's priorities, gaps, and concerns for implementing e-systems.**
- **Held roundtable discussions with law enforcement and emergency response entities and modal agencies to better understand procedures needed for conducting inspection and emergency response pilot test simulations.**



Accomplishments To-Date

Pilot tests and impact data collection:

- Developed on-line data collection instruments.
- Defined, communicated (via 30-Day and 60-Day Federal Register Notices), and obtained Office of Management and Budget (OMB) approval (Sept. 9, 2014) on data collection plan for testing e-system performance and analyzing impacts.
- Selected and oriented pilot test volunteers.
- Implemented pilot tests and impact analysis data collection activities.



Pilot Tests – Ongoing

- **Test period:** February 17 to April 30, 2015.
- **Intent:** Test the performance of e-systems to electronically transfer HM shipping paper information between HM stakeholders (shippers, carriers, law enforcement inspectors, and emergency response personnel) during transportation by: roadway, rail, maritime, and air modes.



- Tests are being performed in five US regions.
- Include one rural area, per MAP-21.



Pilot Tests – Ongoing

- **Pilot participants: All volunteers from multiple stakeholder types:**

| Stakeholder Group | Total No. Participating Entities |
|---|----------------------------------|
| Shippers | 7 |
| Carriers | 4 |
| Shippers / Carriers | 5 |
| Emergency Responders | 6 |
| Inspectors / Emergency Responders (Non-Federal) | 2 |
| Inspectors (Non-Federal) | 7 |
| Inspectors (Federal) | 4 |
| Total | 35 |

- **Roles: Law enforcement and emergency response participants are responsible for:**

- **Conducting inspection and emergency response simulations, and**
- **Collecting and reporting information on the results of the simulations using online simulation question sets.**



Pilot Tests – Ongoing

Electronic transfer is being tested during inspection and emergency response simulations:

- Simulations are unscripted, following participants' own existing procedures.
- Performed utilizing participants' existing equipment and resources.
- Conducted using actual HM shipments during “normal operations.”
- May occur at any point during shipment.
- Hardcopy HM shipping papers must still accompany each shipment during the pilot tests, per current regulations.
- Focus is HM data required (49 CFR 172.200) on a shipping paper.



Pilot Tests – Ongoing

Simulations Completed To-Date

| Mode | Inspection | Emergency Response | Total Completed |
|------------------|------------|--------------------|-----------------|
| Roadway | 9 | 0 | 9 |
| Rail | 0 | 1 | 1 |
| Maritime | 1 | 0 | 1 |
| Air | 0 | 1 | 1 |
| All Modes | 10 | 2 | 12 |

Totals above reflect pilot test data received as of April 14, 2015.



Impact Data Collection – Ongoing

- **Collection period: February 24 to April 30, 2015 (or until first 250 responses received).**
- **Intent: Collect information to aid in a qualitative assessment of potential impacts associated with using e-systems to communicate HM shipping paper information.**
 - **Potential impacts include benefits, costs, safety, and security impacts on the public, emergency responders, and law enforcement.**
- **Participation: Completely voluntary and targeted to community of HM stakeholders and professionals, not just pilot test participants.**
- **Being collected: Via an online questionnaire.**



Impact Questionnaires Received

| Stakeholder Type | Fully Completed | Partially Completed | Total | Stakeholder Percentage | |
|--|-----------------|---------------------|-----------|------------------------|-------------|
| Emergency Responders | 14 | 2 | 16 | 20% | 34% |
| HM Inspectors | 4 | 1 | 5 | 6% | |
| Federal and State Governments (undefined functions) | 2 | 2 | 4 | 5% | |
| State / Local Government—Emergency Responders and HM Inspectors | 3 | 0 | 3 | 4% | |
| HM Carriers | 14 | 5 | 19 | 23% | 66% |
| HM Shippers | 6 | 5 | 11 | 13% | |
| HM Shippers and Carriers | 2 | 2 | 4 | 5% | |
| HM Shippers / Carriers and Responders | 2 | 0 | 2 | 2% | |
| Other (Freight Forwarders, HM Trainers, Equipment Vendors, Software Developers, Pipeline Transporters, HM Manufacturers, Trade Associations, LEPCs, Media, etc.) | 11 | 7 | 18 | 22% | |
| Total (as of April 14, 2015): | 58 | 24 | 82 | 100% | 100% |



Next Steps

- **Conduct data evaluation:**
 - Pilot tests data, and
 - Impact analysis data collection.
- **Prepare a feasibility and assessment report (per MAP-21):**
 - Summarize pilot test findings and assess the safety and security impacts, including associated benefits and costs, of using e-systems.
 - Provide a recommendation to Congress on whether paperless hazard communications systems should be permanently incorporated into the Hazardous Materials Regulations.
- **Complete report for submittal to Congress.**



Future?

Future next steps are yet TBD and will depend in part on the findings, conclusions, and recommendations of the feasibility report.

- **Potential future steps may include, but are not limited to:**
- **Further study to address data gaps and recommendations.**
- **Rulemaking to incorporate paperless hazard communications systems into the Hazardous Materials Regulations.**



Questions

- Additional information is available on PHMSA's HM-ACCESS project website, <http://www.phmsa.dot.gov/hazmat/hm-access-hazardous-materials-automated-cargo-communications-for-efficient-and-safe-shipments>.
- Questions may also be emailed to PHMSA at HMAccess@dot.gov.

