



2015 Users Group Meeting –NTSF Breakout Session
 Embassy Suites Hotel, Albuquerque, NM
 May 12, 2015

1. MEETING ATTENDEES

Organization	First Name	Last Name
Alabama Radiological Control	Tonya	Appleyard
Argonne National Lab	Hanchung	Tsai
Arkansas Department of Health	Don	Greene
California Highway Patrol	Josh	Clements
Canadian Nuclear Laboratories	Mark	Chapman
Canadian Nuclear Laboratories	Mike	Godin
Canadian Nuclear Laboratories	Michael	Molson
Canadian Nuclear Laboratories	David	Parker
Colorado State Patrol	John	Hahn
Idaho National Lab	Bruce	Ellis
Idaho National Lab	Travis	Myers
Idaho State Police	Scott	Hanson
Idaho State Police	Tim	Horn
Iowa Department of Public Health	Randal	Dahlin
Louisiana Department of Environmental Quality	Michael	McMahon
NAC International	James	Adam
NAC International	Tony	Marshbank
Nevada Department of Public Safety	Jenny	Warner
Nevada Highway Patrol	Roy	Baughman
Nevada Highway Patrol	Carl	Johnson
New Mexico Energy Minerals and Natural Resources	Eletha	Trujillo
New Mexico State Police	Mark	Rowley
New Mexico Waste Isolation Project	Angela	Johnson
New Mexico, Department of Energy/Carlsbad Field Office – TRANSCOM	Andy	Walker
Secured Transportation Services	Greg	Phillips
South Carolina Department of Health and Environmental Control	David	Solley
Texas Department of Public Safety	Jason	Johnson
Texas State Energy Conservation Office	Dennis	Brooks
Tri State Motor Transit Co.	Ron	Lorenz
Utah State of	William	Craig
Wyoming Highway Patrol	Crystal	McGuire

2. INTRODUCTIONS

Sharon Taylor, Project Manager, TRANSCOM/Ma-Chis LCITE, welcomed attendees and introduced Della Murray and Nathan Chavarria, TCC staff, Mark David, SAIC, IT Lead, and Andy Walker, DOE/CBFO TRANSCOM Program Manager.

Ms. Taylor explained the goal of the meeting was to update users on changes that have been made to TRANSCOM and to discuss and receive user input for enhancements and changes to better the system. Ms. Taylor explained that most changes/enhancements made to the system were results of requests made from users during the annual meetings.

Ms. Taylor explained DOE is the TRANSCOM system owner and Ma-Chis is contracted to manage the system.

3. OVERVIEW

A TRANSCOM overview was provided which covered TRANSCOM mission and program objectives, description and demonstration of TRANSCOM. The Overview PowerPoint presented is attached to the meeting minutes as Attachment 1.

4. IT PRESENTATION AND FUTURE ENCHANCEMENTS

Mark David, SAIC, IT Lead, presented a slide presentation with suggestions for future enhancements and facilitated discussion for each topic. The IT Future Enhancements PowerPoint presentation is attached to the meeting minutes as Attachment 2.

- a. **Using Speed Data for Alerts** – Capture the vehicles speed data, along with the position and messaging from the communication vendor. Use this speed data to provide user alerts or for reporting. There was a lot of discussion regarding the ability to provide accuracy for this alert due to the fact the system updates every 5 minutes, therefore the accuracy of the speed alert could be off. There was also discussion on who would have access to this information and what it would be used for. A System Change Request (SCR) will be created for further evaluation of need.
- b. **Create a lite portal access into TRANSCOM (IPAD, Android, or Web)** – Develop a mobile application for TRANSCOM. Users agree this would be a valuable tool. A System Change Request (SCR) will be created for further evaluation.
- c. **Add “Restricted Travel Alerts”** – Program rules into the TRANSCOM system involving State’s restricted travel days and times. These rules can be used for notifications. State users agreed this would be a valuable alert and a pre-notification would be desired. A System Change Request (SCR) will be created and the State Regional Groups will be contacted to solicit information for further evaluation.
- d. **Add “Vehicle Inspection Records”** – Allow certain users to attach a vehicle inspection report to a shipment record. There was a lot of discussion regarding adding vehicle inspection records, specifically who and when would this be added. Additional follow up with Regional Groups will take place.

5. REVIEW USER INPUT FORMS

Ms. Taylor reviewed User input forms and facilitated additional discussion for enhancements to the system. System Change Requests (SCR) will be created for the below topics. Additional evaluation of need, process and cost will be determined prior to approval and completing each SCR.

- a. New Map Feature – Michael Wrangler (DOE/EM HQ) – suggested we add a weather layer (overlay) to our map.
- b. Reports – Ellen Edge DOE H/Q – asked for a new report “COOP Report” which can be produced by select users in the event of an emergency. This report will show all active shipments on the road (campaign specific to user) with the following detail:
 - a. Lists all active shipments on road
 - i. Shipment ID
 - ii. Status
 - iii. Designated users contact info
 - iv. Type of Shipment
 - v. Expected arrival of shipment at destination
- c. User training - Denise Brooks, Texas State Energy Conservation Office, suggested adding User training information to the User profile.
- d. Safe Havens - Bruce Ellis, Idaho National Labs, suggested we include Safe Havens in TRANSCOM.

6. ARG-US TRACKING

Han-Chung Tsai, Argonne National Labs, gave a brief presentation on ARG-US tracking and monitoring technologies. Some discussion included cost and the fact these would be very useful for rail shipments.

7. MEETNG EVALUATION AND CLOSE

Ms. Taylor concluded the meeting asking the attendees if the annual TRANSCOM meeting as part of the NTSF breakout session is sufficient. Users indicated this is a good time and platform for the meeting.



2015 Users Group Meeting

Embassy Suites, Albuquerque New Mexico

Tuesday, May 12, 2015





Today's Topics:

- TRANSCOM Mission and Program Objectives
- Description and DEMO of TRANSCOM
- IT Presentation - Future Enhancements
- Invite questions and comments
 - o *Discussion of Users Group Input Forms*



DOE MISSION STATEMENT

Capability, Visibility, and Support Services that result in the Tracking of Radioactive Material Shipments.



PROGRAM OBJECTIVES

To provide DOE with a method for near real-time position tracking of active shipments departing from or going to a DOE facility.

To provide DOE with a secure two-way communication system between the TRANSCOM Communication Center (TCC) and the transport vehicle or vessel.

To provide DOE stakeholders with a secure system to monitor active shipments while they are within their jurisdiction.



- Unclassified
- Encrypted web application
- Mobile Compatible 
- Tracks shipments at near real time
- Entering or leaving a DOE facility
- Users with a need to know



Enhanced Transportation Security

- Protects Shipment Routes, Positions, and Bill of Lading information
- Limits Customer Access to shipments based on a “need to know”
- Alerts examples: route deviations; panic/emergency; Proximity





How Does it Work

- Each truck and rail car is assigned an Omnitracs Transponder
- Transponders communicate with Omnitracs by both Cell and Satellite technology
- Positional data is transmitted at 5 minute intervals
- Messaging is bi-directional
- Position/message, other data at Omnitracs is polled by TRANSCOM 's TC Data Hub for inclusion into the database and web application





TCC SERVICES

- 24/7 staffed monitoring center and help desk
- Maintain system operability – troubleshoot
- Proactively track shipments, set security controls
- Liaison with shippers, carriers, and DOE stakeholders
 - Shipping and scheduling
 - Transportation and security plans
 - Newsletters and Bulletin Board
- Manage communication and status changes within application
- Coordinate outages for maintenance of system
- Set up training simulations, provide classroom training and maintain on-line training
- Contingency planning





Rail Transport

DOE Spent Nuclear Material shipments (short distances use Same transponder as road shipments; longer distances require specific rail product for extended battery life). Position updates and two way communication can be made available to authorized States/Tribes.



Vessel or Barge Transport

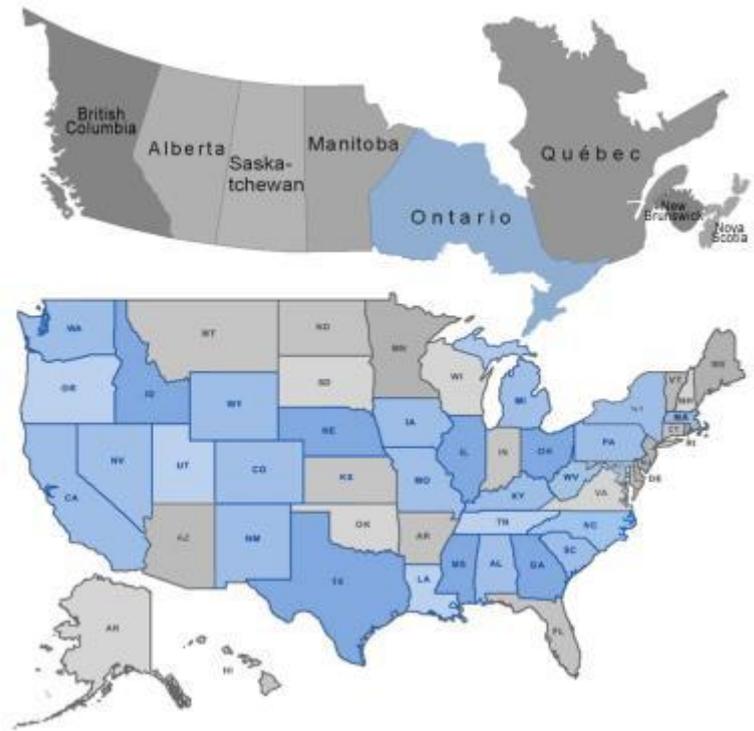
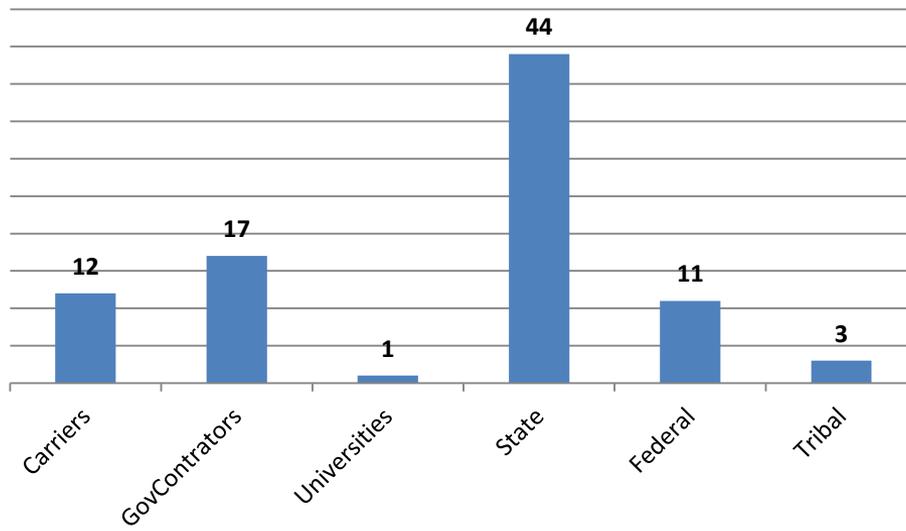
Foreign Nuclear Material shipments from overseas are Monitored.

TRANSCOM tracks more than Trucks...





88 User Organizations Across 28 States and Canada Total users: 565





Pilot Capability Studies:

- 1) Integration of DOE-PCP/Argonne Radio Frequency ID System with TRANSCOM – add capability to discriminate between multiple binary feeds.
IN PROGRESS
- 2) In discussion with Global Material Security (GMS) staff (Paul Singley ORNL) to develop an additional capability to integrate (Traklok) hardware data feed into TRANSCOM- simultaneously with Omnitrac. **PENDING APPROVAL AND FUNDING**

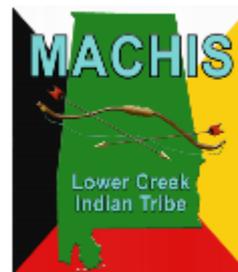
General: Leverage NNSA, NA21-GMS, WIPP and EM needs by utilizing new vendor data that can be analyzed, received, and displayed into TRANSCOM. Some examples: WIPP Trailer Tracking, NA21 OSRP, NNSA rail shipments.



*TRANSCOM is under the management of
the DOE Carlsbad Field Office located
in Carlsbad, New Mexico.*



Managed and Operated by: MaChis LCITE





<https://tcc.transcom.energy.gov>

Demonstration

Status Board

Active	Inactive														
<table border="1"> <thead> <tr> <th>Shipment ID</th> <th>VO</th> <th>S</th> <th>Actual Departure</th> <th>Latitude</th> <th>Longitude</th> <th>Position</th> </tr> </thead> <tbody> <tr> <td>TEST029</td> <td>1000</td> <td>T</td> <td>06/20/2014 10:00</td> <td>32.371203</td> <td>-104.233703</td> <td>2.92 Mile</td> </tr> </tbody> </table>	Shipment ID	VO	S	Actual Departure	Latitude	Longitude	Position	TEST029	1000	T	06/20/2014 10:00	32.371203	-104.233703	2.92 Mile	
Shipment ID	VO	S	Actual Departure	Latitude	Longitude	Position									
TEST029	1000	T	06/20/2014 10:00	32.371203	-104.233703	2.92 Mile									

TRANSCOM Training: TRANSCOM users are encouraged to utilize the on-line OBT for support site. For users requiring hands on Group Administrator, Clerk, and Shipper being offered. If you are interested in attending a class please register no later than [date].

TRANSCOM v3.0

Map Status Board Map Shipment Reports Admin Links

Latitude: 40.23075 Longitude: -100.00000

Shipment ID	VO	Status
TEST029	1000	Active
TEST028	2000	Inactive

TRANSCOM v3.0

Shipment Details

TEST029

Item	QTY	Unit	Weight	Volume
Item 001	1000	TON	1000000	1000000
Item 002	1000	TON	1000000	1000000

Unit Messages

From	To	Type	Message	Date	Time
SR_ADMIN@TCC	SR_ADMIN@TCC	System	System message	01/01/2014	00:00
SR_ADMIN@TCC	SR_ADMIN@TCC	System	System message	01/01/2014	00:00

TEST029

- Shipment Details
- Messaging
- Weather
- External Map
- Auto Receiver



IT FUTURE ENHANCEMENTS



Open Discussion

User Group Input Forms

IT Presentation - Future Enhancements

1. Using Speed Data for Alerts
2. Create a lite portal access into TRANSCOM (IPAD, Android, or Web)
3. Add “Restricted Travel Alerts”
4. Add “Vehicle Inspection Records”

Mark David, SAIC



Adding Vehicle Speed to TRANSCOM

- Speed Data Collection
- Speed Alerts
- Using Speed Data for Statistical Analysis
- Permanent Record
- Reporting



Using Speed Data for Alerts

Two collection methods:

- 1) Data capture from the OBD connection (If available)
- 2) Calculated Distance(miles)/time(hrs) from last position

Both methods may be used for comparison.



Using Speed Data for Alerts

General Alert

Shp ID: **INL10001X**
Has Exceeded the Restricted
Speed value of 65 MPH
For 2 Positions

Acknowledge Defer

Example of a Restricted Speed Alert

General Alert

Shp ID: **INL10001X**
Has Exceeded the Speed limit
by 10 MPH
For 2 Positions

Acknowledge Defer

Example of a Correlated Speed Alert



Using Speed Data for Statistical Analysis

Example for fictitious Shipment INL10001X.

Route: INEL to WIPP

Average Speed Shipment while Status 1 = 60 MPH

Average Speed through Denver City corridor = 70 MPH**

Example of fictitious Driver: Bob Somebody

Route: INEL to WIPP

Average speed for all trips with this driver and route while Status 1 = 66 MPH**

Example of Statistics for all INEL to WIPP Shipments

Average speed for all trips on this route while Status 1 = 60 MPH

Example of Statistics for all INEL to WIPP Shipments through Denver

Average speed for all trips through Denver on this route while Status 1 = 60 MPH

****Analysis identifies speeds in excess of legal limit**



Speed as Part of the Permanent Record

Example of the permanent position record that would be kept for shipment:

LAT	LON	Position	Date and Time	SPD
36.986944	-104.482777	5.77 Miles NNW of Raton, NM	2012-12-23 14:43:25	64
36.985277	-104.484166	5.69 Miles NNW of Raton, NM	2012-12-23 14:45:24	71*

**Note: speed value above is fictitious and displayed for illustration purposes only.*



Using Speed Data in Reports

TRANSCOM Shipment Report

Page 5
INL10001X

Over Speed limit Exceptions:

<u>Lat</u>	<u>Lon</u>	<u>Pos</u>	<u>Date Time</u>	<u>Limit</u>	<u>Recorded</u>
36.98694	-104.48277	5.77 M NNW of Raton,NM	2012-12-23 14:43:2	35	45
40.5566	-105.00111	1.58 M NNW of Timath,CO	2012-12-23 05:55:0	65	71**

Restricted Speed Exceptions:

35.15638	-105.75583	10.8 M NNW of ClinesC,NM	2012-12-23 18:23:44	65	70**
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****** *Speeds values above were made up for illustration purposes only.*



Lite Portal

Mobile
App

TRANSQUICK

As of 11:00PM MTN 04/22/2015

SHP ID	Location	Status
HANF0012	30 Miles NW of Boise, ID	2
HANF234B	15 miles South of Richland, WA	1
SR001234	20 Mile West of Atlanta	1
SR001235	5 mile SW of Atlanta	1

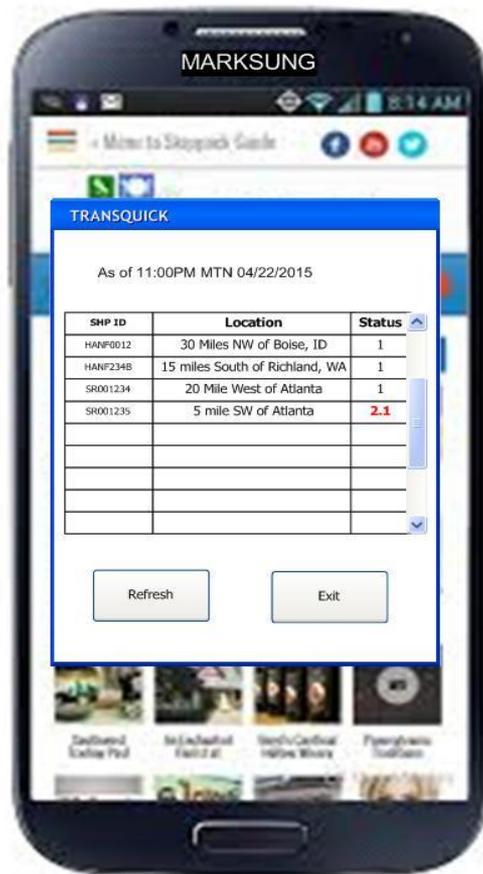
Refresh

Exit



Lite Portal

Mobile App



- Phone or Tablet
- Very Portable
- Just the details you need
- Touching the Shipment ID would give more information:

TRANSQUICK Status Detail

HANF0012

As of 11:00PM MTN 04/22/2015

LAT : 43. 717844
LON: -116.688388
ELEV: 2417

Speed: 64 Mph



Restricted Travel Alerts

General Alert

Shp ID: **INL10001X**
Is Status 1 moving
in the Denver Corridor
during a
Restricted Time

Acknowledge Defer

Intended to be used for existing agreements with the Stakeholders.

Rules based on parameters that could include:

- Zones defined by rectangular and circular areas.
- Allowable days of the week
- Allowable hours during the day
- Restricted holidays
- Status types



Vehicle Inspection Records

As part of a shipments history the border vehicle inspections could be made part of the record.

Inspection Record

Entry State: TX

04/29/2015 18:02

Carrier: CAST Vehicle: C04

Exceptions:

- 1) Placard was set wrong according to BOL – Driver corrected.
- 2) Tire #6 low pressure – Driver inflated, holding
- 3) Right rear tail light cracked but functioning.

Entry Allowed: MED 234561