Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Metro

Board Report

File #: 2017-0401, **File Type:** Oral Report / Presentation **Agenda Number:** 31

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017

SUBJECT: ORAL REPORT ON SYSTEM SAFETY, SECURITY AND OPERATIONS

RECOMMENDATION

RECEIVE oral **report on System Safety, Security and Operations.**

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ITEM 31

Metro Emergency Management

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System Safety, Security & Operations Committee
July 20, 2017

Emergency Management's Role & Improvement Measures

- Introduction of new Sr. Director of Emergency Management – Joe Mendez
- Metro's Emergency Management Department's role is to enhance Metro's emergency response and improve continuity of operations by:
  - Emergency planning
  - Training and exercises
  - Outreach and informational programs
- Important Emergency Management initiatives over the last 24 months include:
  - Training & Exercise Program
  - Earthquake Early Warning & ShakeCast System
  - Post Earthquake Safety/Damage Assessment
  - Planning Activities
  - Emergency Supplies
  - Employee Preparedness & Outreach

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Training & Exercise Program

- Purpose: Provide training regarding real life emergencies, identify gaps in Metro's current plans and provide effective remedial measures.

- California Public Utilities Commission (CPUC) requires 1 exercise per rail line annually.

- Metro exercises have increased since 2015 with the inclusion of Bus Operations and the expansion of rail lines.
  - 2015 – 12 Total Bus and Rail Exercises
  - 2016 – 19 Total Bus and Rail Exercises
  - 2017 – 21 Total Bus and Rail Exercises

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Earthquake Early Warning & ShakeCast Systems

An earthquake is potentially the most catastrophic event over the LA region

- **Earthquake Early Warning System (EWS)** – A pilot program from the US Geological Survey which provides a pre-early warning of seismic activity.
  - In August 2012 – USGS approached Metro to be a beta test user of Shake Alert; installed at the Rail Operations Control Center.
  - In September 2016 – Enhanced Early Warning System to provide an alert over the Rail Operations Control Center's communication system which alerts controllers to notify Operators when a 5.3 magnitude or above earthquake occurs.

- **USGS ShakeCast/ShakeMap System** – Automatic notification of preliminary damage assessments of 121 critical buildings, specific rail stations and bridges.
  - In February 2015 – Increased to include all significant Metro facilities.
  - In August 2016 – Added structures for the Expo/Gold Line extensions.

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Metro Emergency Management Testing – ShakeCast

ShakeCast Event: Magnitude 7.1
METRO Emergency Mgmt IS TESTING ONLY !! REPEAT TESTING ONLY -- ShakeCast Event: Magnitude 7.1

Event Location: Puente Hills
Event Time: 2012-10-10 12:00:00
Generated at 2013-12-18 20:30:43
Reported by: Server ID = 1000, DNS = localhost -->

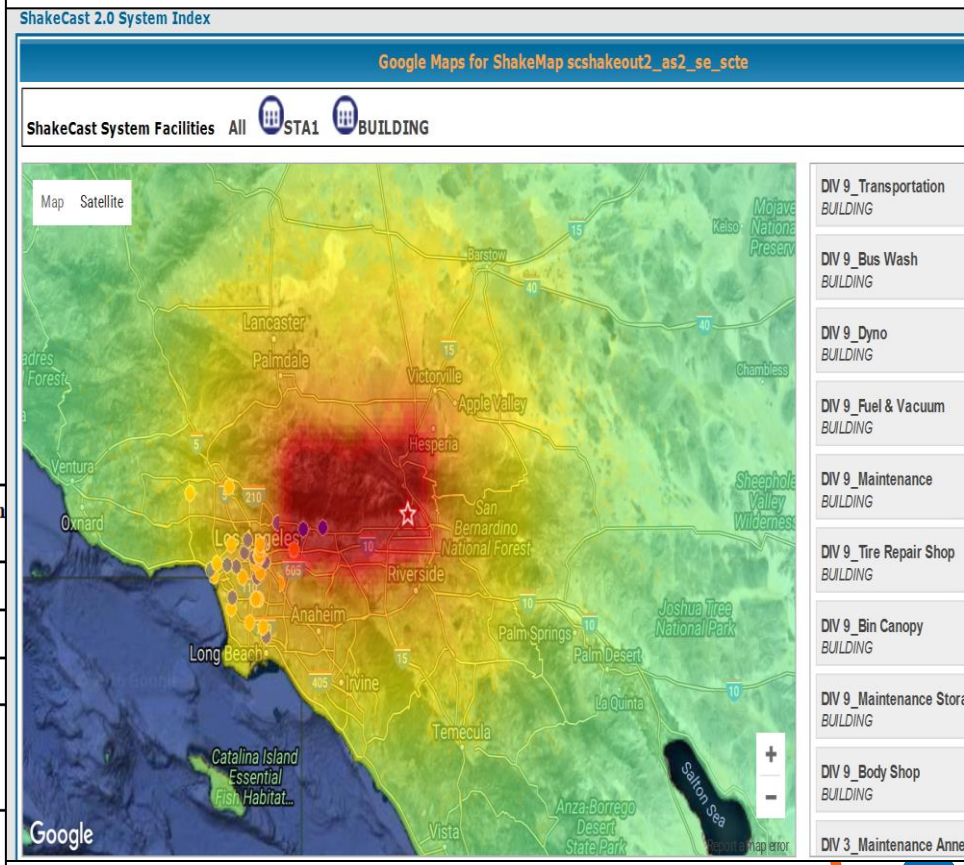
METRO Shakecast server map of event - with facilities

Damage Summary

Number of Facilities Reported: 121
Max Value: MMI: 8.88; Acceleration: 50.27
Number of Reports of Likely Damage: |NULL|
Number of Reports of Possible Damage: 47

Facility Damage Estimates from ShakeMap

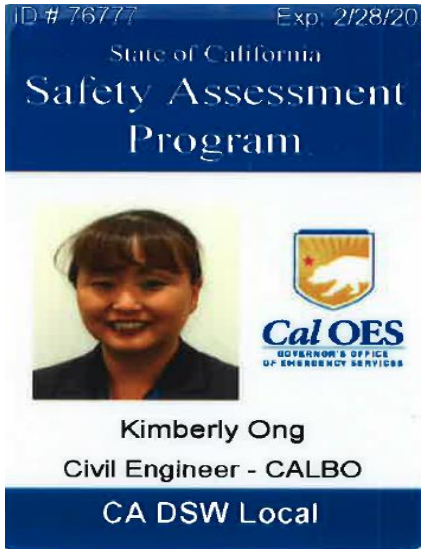
Facility	Description	Damage Level	Metric	Value	Exceedan Ratio
DIV 9_Bus Wash	Bus Wash	Moderate/Heavy	PGA	50.27	0.052
DIV 9_Fuel & Vacuum	Fuel & Vacuum	Moderate/Heavy	PGA	50.27	0.076
DIV 9_Maintenance	Maintenance	Moderate/Heavy	PGA	50.27	0.076
UNION STATION 1_Ticketing, waiting and concourse	Ticketing, waiting and concourse	Moderate/Heavy	PGA	50.27	0.881
UNION STATION 2_Amtrak building and historic clock tower	Amtrak building and historic clock tower	Moderate/Heavy	PGA	50.27	0.549
GOLD-PASADENA	Chinatown-SWMusuem Ref Point: HERITAGE SQUARE	Moderate/Heavy	MMI	8.88	0.940



Post Earthquake Safety/Damage Assessment Team

- In 2002 California Office of Emergency Services developed training for local licensed professionals to quickly evaluate post-earthquake structural integrity.

- In June 2015 Metro rolled out and completed the California Office of Emergency Services training.
  - Increased Metro's ability to quickly assess structural damage post-earthquake.



Safety Assessment Teams

- **Licensed Professionals – 32**
- **Non Licensed Professionals – 107**

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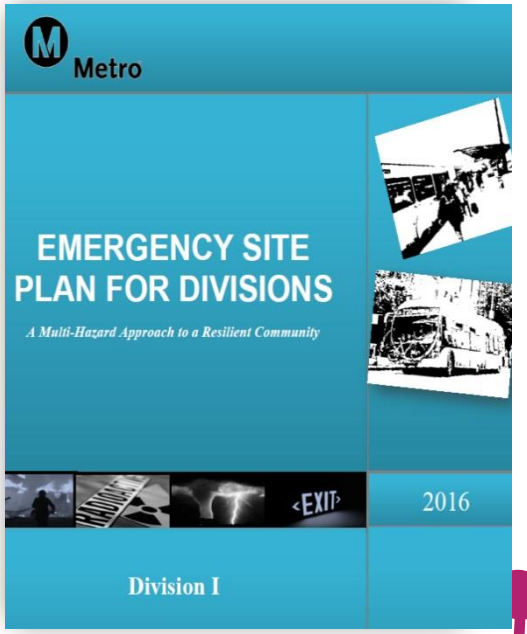
Updated Plans and Procedures

- **Continuity of Operations Plan (COOP) training components**
  - November 2016 – Began development of departmental COOPs
  - June 2017 – Completed 19 departmental COOPs
    - Workshops identified key functions, interdepartmental dependencies, and recovery strategies in the event of a disaster
  - June 2017 – Completed enterprise-wide COOP

- **Division Disaster /FEMA Assistance Program**
  - January 2017 – Prepared FEMA Disaster Assistance Guidance Sheet
    - Presented findings to Grant Planning Units

- **Preparedness Plan Development Activities**
  - March 2017 – Completed 22 Division Emergency Site Specific Plans (ESPs)
    - Established guidance fact sheets to all ESPs



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Emergency Supplies

Point of Dispensing (POD) site is an Emergency supply bin instituted best practice model designed to provide commodities, emergency first aid supplies, or emergency equipment.

- The goal of a POD is to quickly provide these items to a large number of people in a short period of time.
- In March 2017 Metro PODS were completed.

PODS Locations

- All Bus and Rail Divisions
- All non Division Locations
- Gateway/Union Station

Emergency Supplies

- Medical: First Aid Kits
- Consumables: Food & Water
- Emergency Equipment: Generators, Lights, etc.

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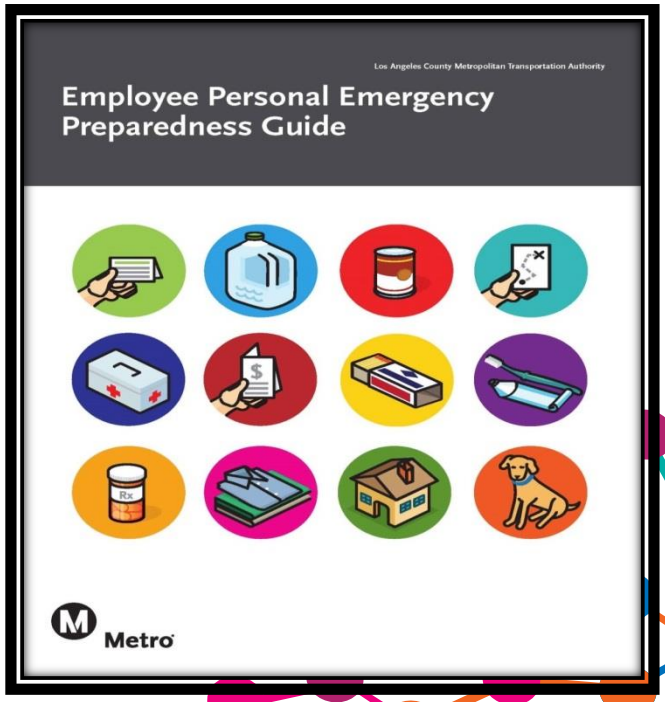
Employee Preparedness and Outreach

- September 2016 – Active Shooter Campaign
- October 2016 – Major revision to the Employee Personal Emergency Preparedness Guide to illustrate how employees can cover costs of losses and damages
- November 2016 – Disaster Service Worker campaign
- February 2017 – Emergency Fast Guide campaign
- March 2017 – Updated the Employee 72 Hour Emergency Home/Travel Preparedness Checklist
- April 2017 – Updated the Employee Standard Response Protocol



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