



Metro

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

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.

Metro Emergency Management

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



Training & Exercise Program

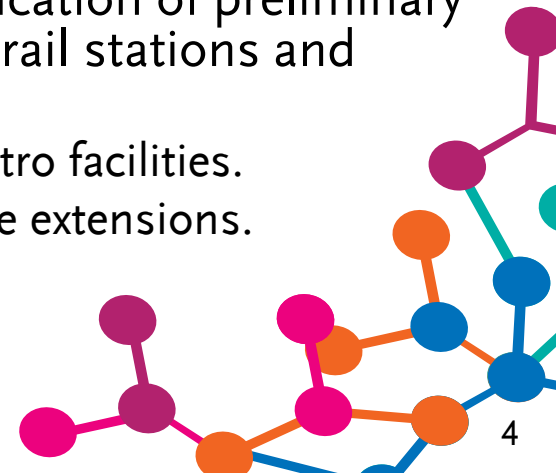
- ❑ Purpose: Provide training regarding real life emergencies, identify gaps in Metro's current plans and provide effective remedial measures.
- ❑ California Public Utilities Commission (CPUC) requires 1 exercise per rail line annually.
- ❑ Metro exercises have increased since 2015 with the inclusion 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



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.



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

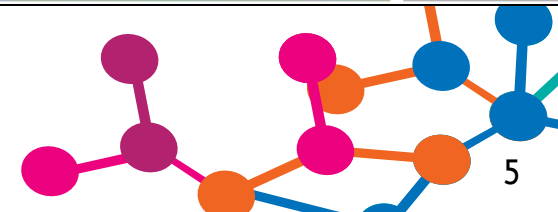
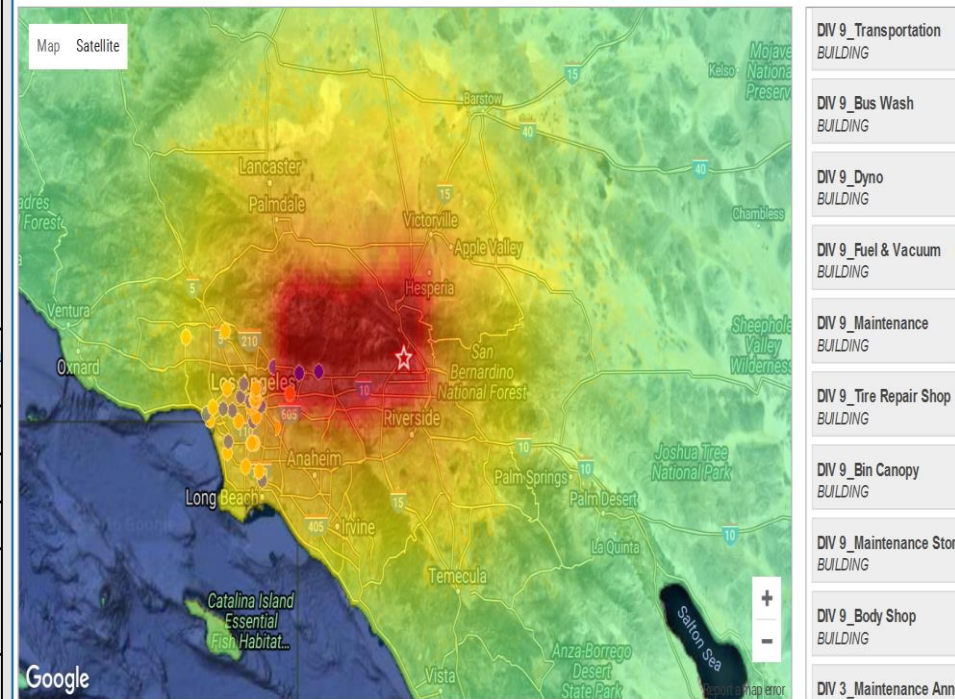
Facility Damage Estimates from ShakeMap

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-SWMuseum Ref Point: HERITAGE SQUARE	Moderate/Heavy	MMI	8.88	0.940

ShakeCast 2.0 System Index

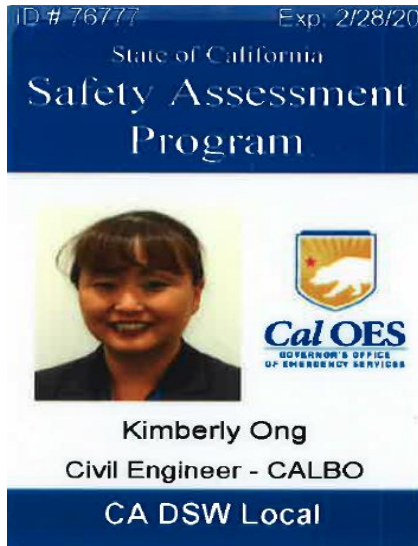
Google Maps for ShakeMap scshakeout2_as2_se_scte

ShakeCast System Facilities All STA1 BUILDING



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.

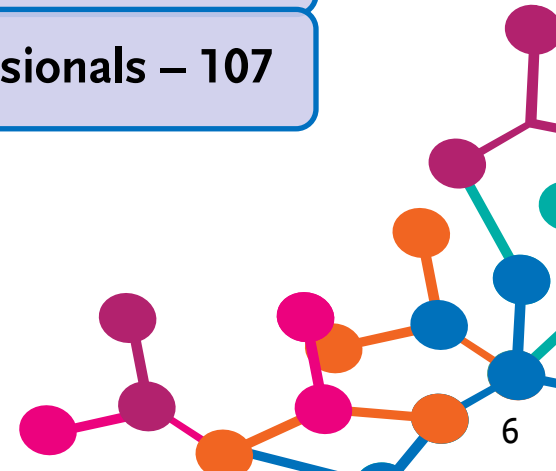


Safety Assessment Teams

- Licensed Professionals – 32
- Non Licensed Professionals – 107

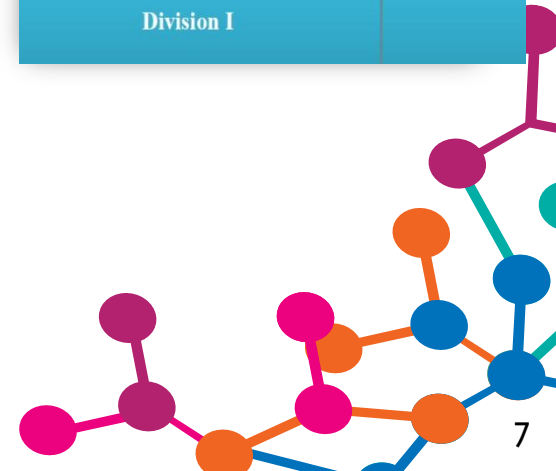
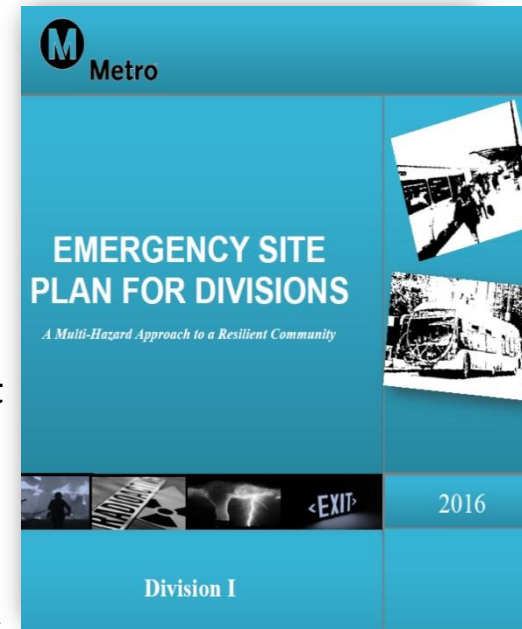


Metro



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



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.



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

