

## **Evacuate Now!**

Evacuation Risk Assessment & Gap Analysis

Gary Gleason

Vice President



# **Gary Gleason**

- Vice President, Nusura
- Associate Staff, Transportation Safety Institute
- Fulbright Scholar, Civil Protection

gary.gleason@nusura.com 970.948.7680



# Agenda

- Framework
- Vulnerability Assessment
- Continuity of Operations
- The Role of Transportation
- Conclusions/Discussion



## **Definitions**

- Safety
- Security
- Emergency Management



# **Assessing Vulnerability**

- Accidents
- Acts of Nature
- Hazardous Materials
- Critical Infrastructure
- Criminal Activity
- Terrorism



# **Assessing Vulnerability**

- Historical Analysis
- Physical Analysis
- Expert Evaluation
- Scenario Analysis



## **Accidents and Incidents**

- Vehicle Accidents
- Passenger Incidents
- Employee Incidents
- Fire



#### **Acts of Nature**

- Flooding
- Winter Storms
- Tornadoes
- Wildfire
- Earthquake
- Landslides/Avalanches
- Dust Storms
- Fog



## **Critical Infrastructure**

- Power Outages
- Computer Crash/Cyber Attack
- Communication Systems
- Supply Chain Interuption
- Facility Loss
- Staff Shortage
- Employee Malfeasance



#### **Hazardous Materials**

- Bloodborne Pathogens
- Fuel Spills/Releases
- Blister Agents
- Pulmonary Agents
- Neurological Agents
- Radiological Emergencies



# **Criminal Activity**

- Trespassing
- Vandalism/Criminal Mischief
- Workplace Violence
- Commandeered Vehicle
- Bomb Threat



#### **Terrorist Attack**

- Dangerous Mail
- Suicide Bomber
- Improvided Explosive Device
- Weapon of Mass Destruction



# **Emergency Management**

- Prepare
- Prevent
- Respond
- Recover



## Hazard/Threat Levels

- Severe
- Elevated
- Guarded
- Low





# Preparedness

- Planning
- Training
- Exercises





#### Prevention

- Gather Information
- Communicate Risks
- Strengthen Security
- Identify Resource Needs
- Establish Contingency Plans
- Pre-Position Resources
- Coordinate with Partner Agencies



## Response

- Activate Response Team
- Deploy Response Resources
- Make Service Adjustments
- Make Proper Notifications



## Recovery

- Reconstitution
- Service Modification
- Repair/Replace Disaster
   Damaged Assets
- Conduct After Action Analysis
- Institute Changes



# **Operational Continuity**

- Essential Mission
- Essential Functions
- Essential Resources

## **Critical Assets**

- People
- Information
- Property



# COOP Plann

# **COOP Planning**

- Continuity of Management
- Service Suspension Thresholds
- Service Suspension Protocols
- Service Resumption Thresholds
- Service Resumption Protocols



## **Evacuation Thresholds**

Orange County Evacuation Pan Š Evacuation Level Definitions		
<u>Evacuaon Leel</u>	<u>Paramete</u> rs	<u>Exampl</u> es
Low Mana@d by local jurisdction Moritored by OA	Incidentimpactswithin just one municipality > 5,000 evaces	<ul> <li>Structral fire</li> <li>Bomb/bomb threat</li> <li>Hostageits aton</li> <li>Hazmat spill</li> <li>Mudside</li> <li>Aviation acodert</li> </ul>
Modeate  Mutual aid required  County Baste Prodamation likely  State Baste Prodamation  possible	Incidentimpactsaffect multiple jurisdctions 5,00025,000 evacuees	- Wildfire - Flood - Earthqake - Tsunami - Stage II powerfailure - Indutrial actident - Cretible terorthreat - Civil unrestiot
Severe State Lisaste Protamation Presidental Disaster Detaration Postible	Incidentimpactsare regional < 25,000 evalees	<ul> <li>- Major wildfire</li> <li>- Major flood</li> <li>- Dam failure</li> <li>- Dirtybomb</li> <li>- Nutear rtease</li> <li>- Earthqake&lt; 6.5</li> </ul>

## **Evacuation Objectives**

- Access Control
- Expedite Movement

(People, Animals, Goods)

Assure Safe Reentry





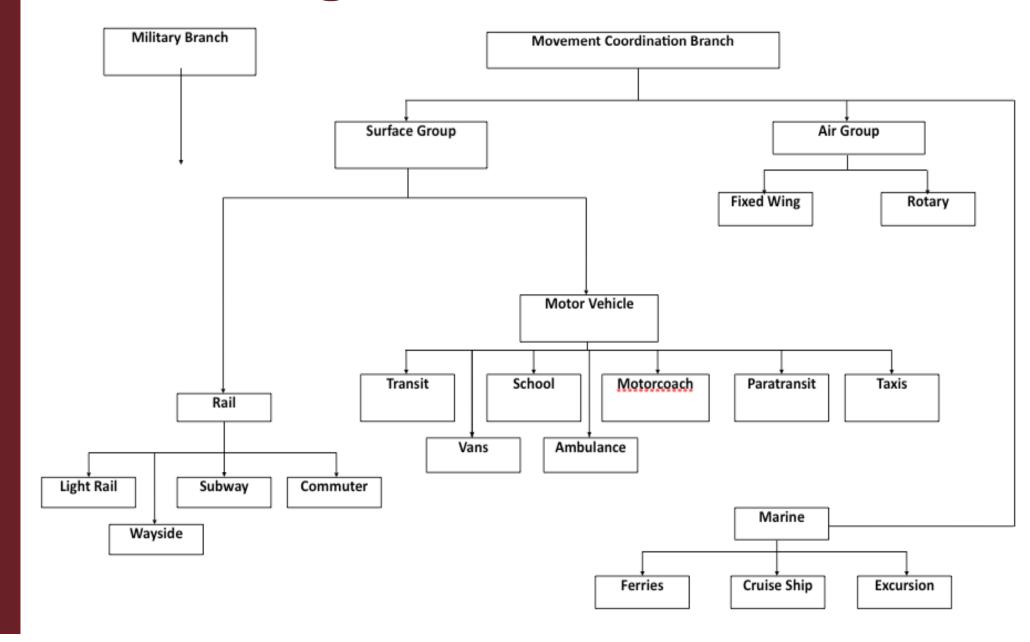
## **Transportation Strategies**

- Traffic Signal Coordination
- Intelligent Transportation Systems
- Route Designation
- Contraflow
- Segregation of Cars and People
- Freeway Patrol Services

## **Concept of Operations**

- Transportation Management Teams
- Staging
- Embarkation Points
- Transportation Hubs
- Evacuee Manifesting and Tracking
- Evacuation Information
- Care and Shelter

## Connecting with the EOC



#### **Notice V. No Notice Events**

- Staged/Progressive Evacuation
- Accounting for Shadow Evacuation
- Challenges of Advance Notice
- Challenges of No-Notice



## **Internal Agreements**

- Board Support
- Liability Coverage
- Staff Commitment
- Personal Preparedness



## **Interagency Agreements**

- ESF-1 Coordination
- Activation/Control of Assets
- Reimbursement/Mutual Aid



## **Transportation Concerns**

- Resource Typing
- Credentialing
- Surge Support
- Extended Service Area
- Pets and Service Animals
- Service Plan for Shelters
- Shelter Plan for Staff



## Personal Preparedness

- Situational Awareness
- Shelter Planning
- Food and Water
- Go Kits
- Reunification Plans
- Pets and Dependents



# **Emerging Risks**

- Globalization of Terrorism
- Climate Change
- Pandemic
- Power Cut



#### Conclusions/Discussion





gary.gleason@nusura.com 970.948.7680