# 63rd Annual Business Meeting

# Integrating Technology into Disaster Response

## GURBIR SINGH

## CALOES

# SAP Overview

• SAP's role in post-disaster safety evaluations.

•Helping local governments assess infrastructure quickly.

•Goals:

- • Reduce reliance on emergency shelters.
- • Facilitate safe re-entry for residents.
- • Reopen businesses and community spaces.
- • Assist in prioritizing rebuilding efforts.

# SAP Overview

- State Coordinators: CalOES employees.
  - Manage deployments and coordinate missions.

- Trainers: Certified to train others in SAP evaluations. Only offered by CalOES.

- Coordinators: Lead 4-6 evaluators during major deployments.

- Evaluators: Perform rapid safety assessments on buildings and infrastructure.

- Support: Members that are not licensed or certified but took the training.

# SAP Overview

• Training can be provided by any CalOES SAP team member, SAP certified trainer or Self Paced online training.

• SAP ID cards expire every 5 years; refresher training is required.

• One year grace period to take the refresher.

• All members are welcomed back to the program.

# SAP Overview

- Started after the 1971 San Fernando Earthquake.

- Expanded post-1987 Whittier-Narrows Earthquake; formal training established.

- Now covers earthquakes, floods, fires, windstorms, debris flows, explosions, and snow loads.

- Notable deployments: Hurricane Katrina (2005), Alaska Earthquake (2018), Lahaina Fire (2023).

# SAP Overview

• For emergency surge, no MOU required for limited DSW State SAP.

• Non-DSW State SAP members require a Memorandum of Understanding (MOU) for FEMA reimbursement.

• Although State SAP members can deploy quicker, there are more DSW L and DSW V members. However, MOUs and reimbursements need to be considered.

• Emergency Management Assistance Compact (EMAC) allows SAP personnel to be deployed out of the state to provide disaster assistance.

# SAP Overview

- INSPECTED (Green): inspected for occupancy.

- RESTRICTED USE (Yellow): Limited entry due to hazards.

- UNSAFE (Red): No entry; serious damage.

- SAP personnel are covered under Good Samaritan Laws and deputized by local governments.

# SAP Overview

Current active SAP members in CA: 6,390

- DSW S: 863
- DSW L: 2,712
- DSW V: 2,176
- DSW C: 639

Current active SAP members Nationally: 9,955

New members year to date: 2,043

Refresher members year to date: 600

## SAP has launched a self paced online training, available now on CSTI.

# SAP Deployments

- Event: M6.4 earthquake (Dec 20, 2022) & M5.4 aftershock (Jan 1, 2023).

- Location: Rio Dell, Humboldt County.

- Impact:
  - 2 fatalities, dozens injured.
  - 1,361 structures assessed across two deployments.
  - Significant damage to homes and historic buildings.
  - First-time use of Survey123 for digital damage assessment.

  Deployment Details:
  - 1st Deployment (Dec 21-26, 2022): 8 SAP personnel, 582 structures & 4 schools inspected.
  - 2nd Deployment (Jan 2-12, 2023): 14 SAP personnel, 1,361 reassessments completed.
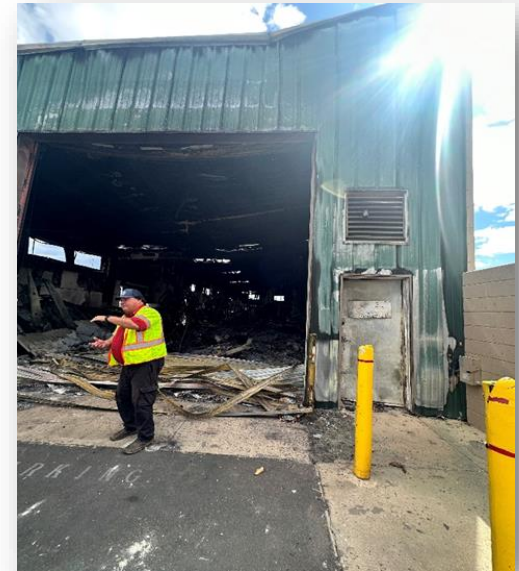
# SAP Deployments

# SAP Deployments



- Event: 2023 Winter Storms

- Locations:
  - El Dorado County (March 10-13, 3 days).
  - Mono & Inyo Counties (March 13-19, 6 days).

- El Dorado County: 5 SAP personnel, 183 inspections in South Lake Tahoe.

- Mono & Inyo Counties: 7 SAP personnel, 186 inspections in Mammoth Lakes, June Lake, Bishop.

# SAP Deployments



- Event: Lahaina Fire 2024

- Locations:
  - Maui, Lahaina

- Maui County:
  - 10 CA DSW SAP personnel, 6 Hawaii public works SAP, 18 SAP local volunteers.

- Longest SAP mission in 6 years.

- Inspected:
  - 2,644 structures.

# SAP Deployments

- Event: Park Fire 2024
- Locations:
  - Butte county, California
  - 4 CA DSW SAP personnel, 4 local SAP
- Event: LA Wildfire 2025
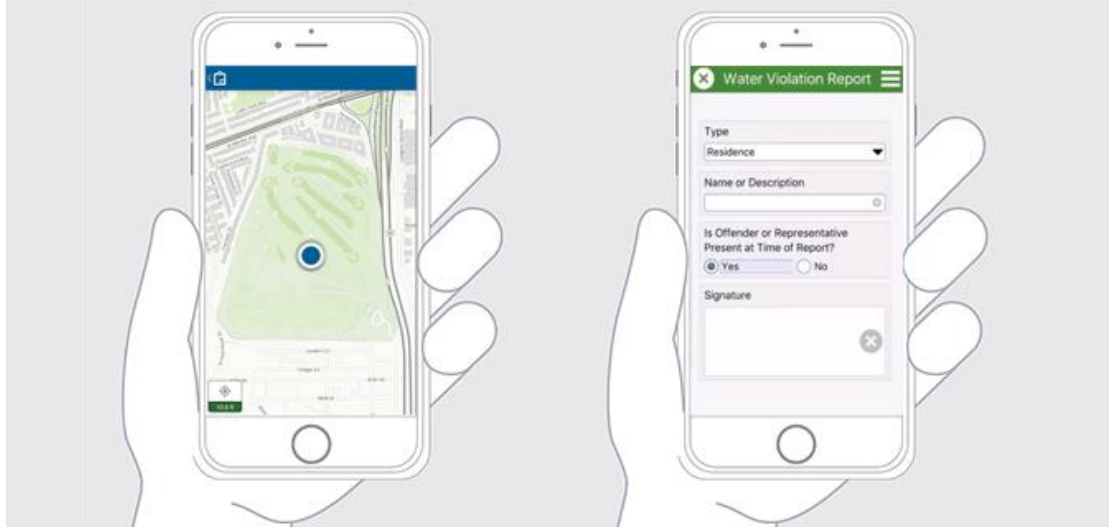- Locations:
  - Los Angles county, California
  - CalOES Support

# SAP-Survey 123/GIS

**Pros:**
- User friendly
- Can make changes on field with ease
- Offline

**Cons:**
- Limited number of users
- Limited editability
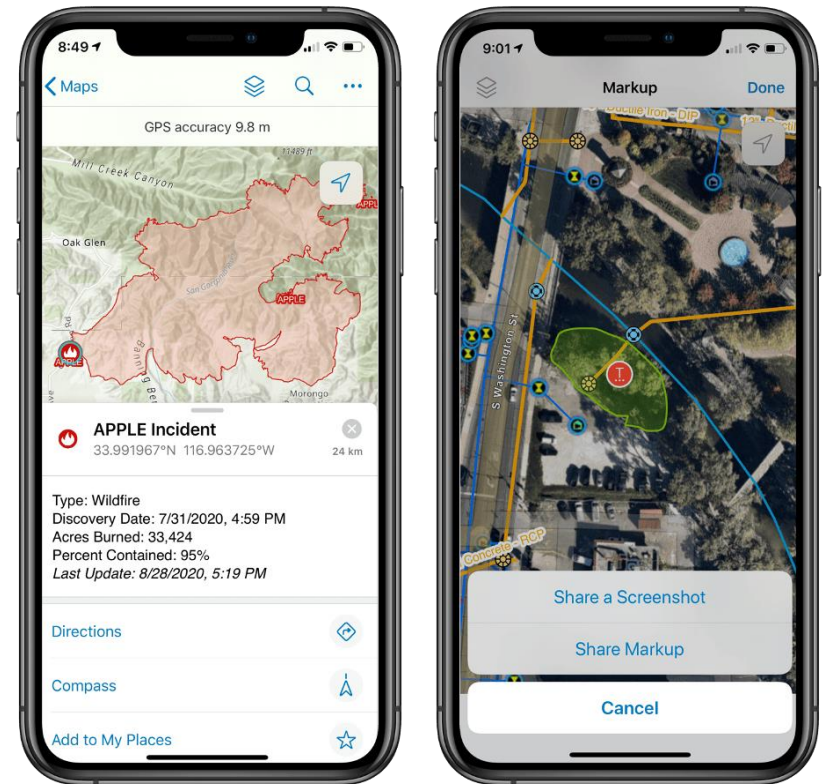- Challenging to view survey points from other users

# SAP-Field Maps/GIS

**Pros:**
- Users can view survey points
- Users can modify survey points
- Similar form interface as survey 123

**Cons:**
- More complex for form editing
- Tends to be crash prone
- Offline capability needs to be preset and can be unreliable at times.
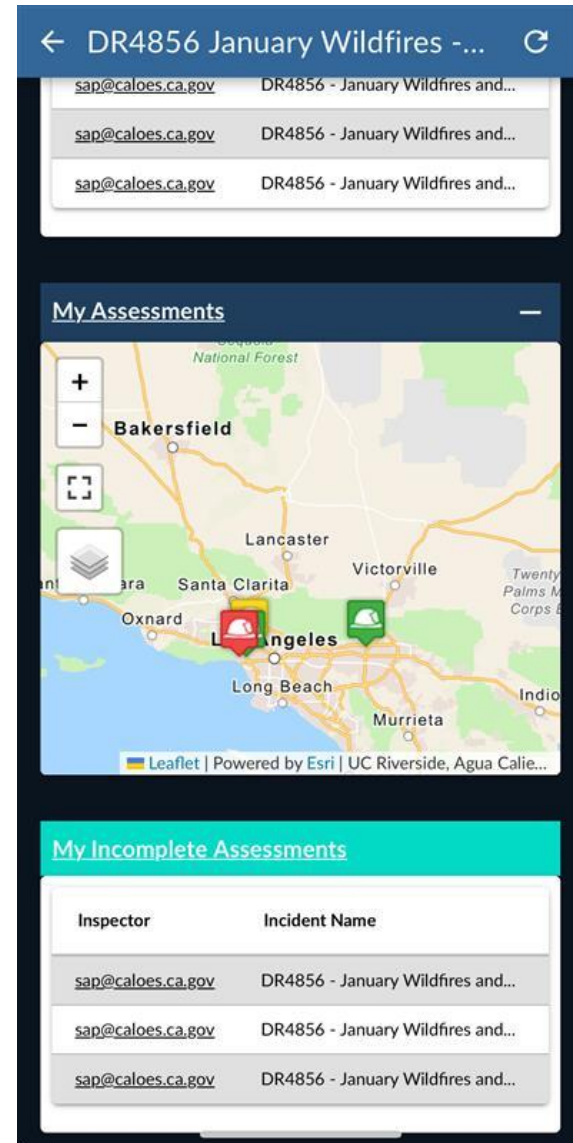
# SAP-Veoci



**Pros:**
- All SAP users have access
- Can be used for local disasters if permitted by CalOES
- Forms can be modified
- Surveys can be edited

**Cons:**
- Can only work with CalOES oversight
- App still underdeveloped
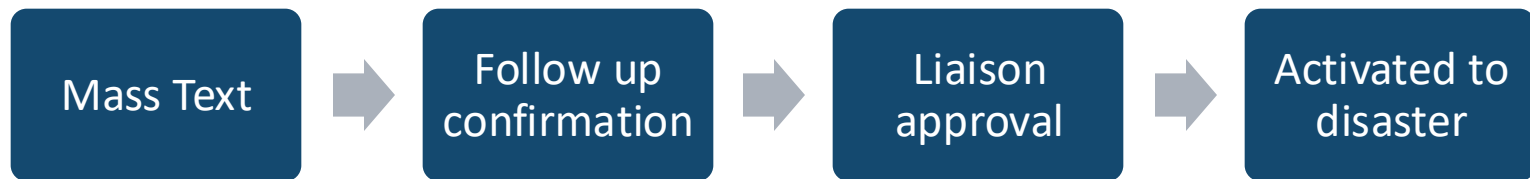- Technical challenges for offline capability.

# SAP-Veoci Profiles

- All SAP members have a new Veoci profile
- All members can access digital IDs and certificates
- Profiles will soon show recent SAP activities
- SAP profile must be updated for CalOES deployment.
- Cal OES SAP can call out to SAP members for support.
  - Call outs will come via text and email.
- State DSW can be called out for other engineer/emergency use.

# SAP-Veoci Deployment

- Once SAP send out mass, members must submit "Yes" or "No".

- Based on the results, SAP will send out a follow up "availability form".

- Liaisons will receive availability forms and coordinate with members organization for approvals and logistics.

- Once approved by liaisons, members are activated to the disaster.

| Mass Text | → | Follow up confirmation | → | Liaison approval | → | Activated to disaster |

# SAP-Digital ID

Veoci Digital ID

• Current capabilities limited to PDF download.

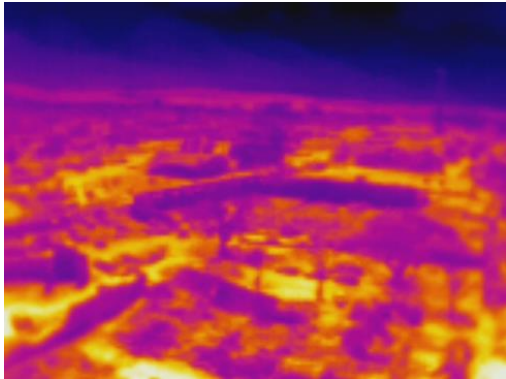• SAP ID status changes during deployment.

Digital Bazzar

• Similar to DMV IDs

• Can be saved on phone wallet
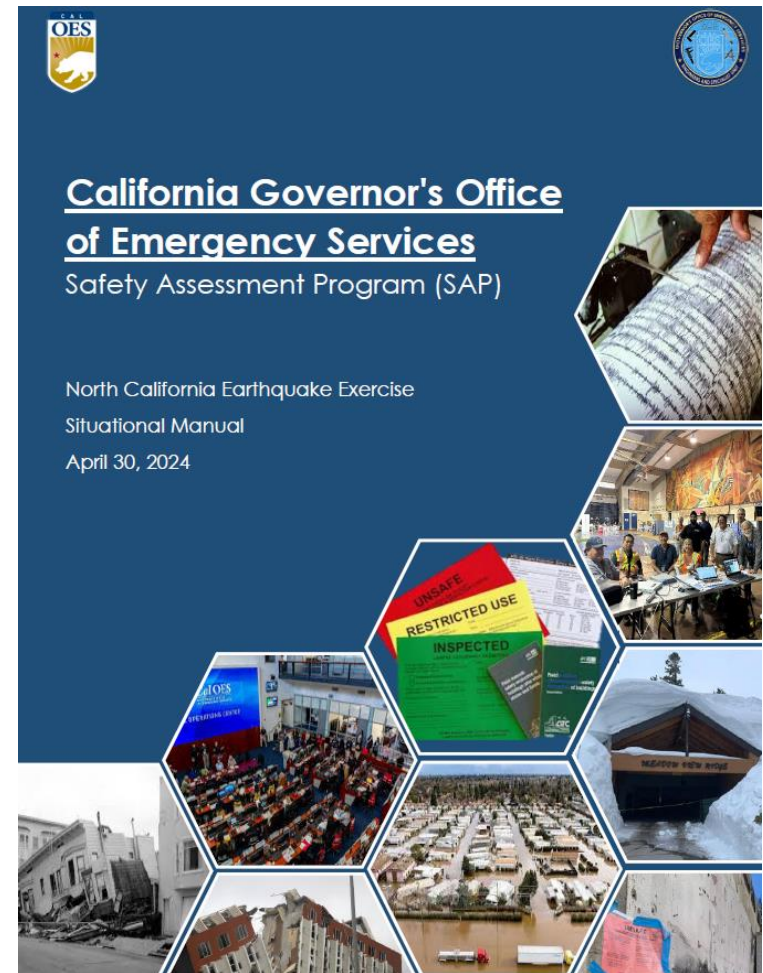
• Higher authentication

# SAP-Future

- Drone use for major structures.
- Change detection using satellite.
- Annual exercise
- Use of CalOES FIRIS lidar

# SAP-Exercise

- San Jose, major earthquake exercise 2024

- Annual Shake out

- Santa Monica, major earthquake 2024

- Exercise goals:
  - Test new SAP technologies
  - Try something new in a controlled environment.
  - Refresh local jurisdictions SAP capabilities

- Want to participate in an exercise?



**California Governor's Office of Emergency Services**
Safety Assessment Program (SAP)

North California Earthquake Exercise
Situational Manual
April 30, 2024

# Questions?

If you have any questions, please contact the SAP team at SAP@calOES.ca.gov.