Information Technology Update: ShakeAlert

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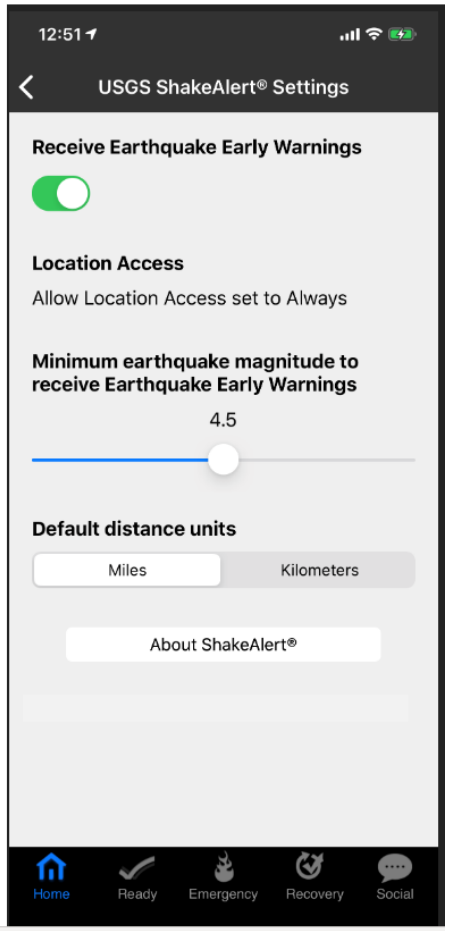
OES, IT Principal

- County of San Diego/Perspecta- Pilot License Agreement with the US Geological Survey (USGS)
- ShakeAlert will be integrated with the SD Emergency Mobile App
- Preliminary Testing started on September 30, 2020
  - Goal (and USGS standard)- 95% of recipients will get the alert within 5 seconds of USGS sensor notification
- Testing to continue through first half of 2021
  - Goal- Achieve USGS License to Operate and Release to Public in second half of 2021

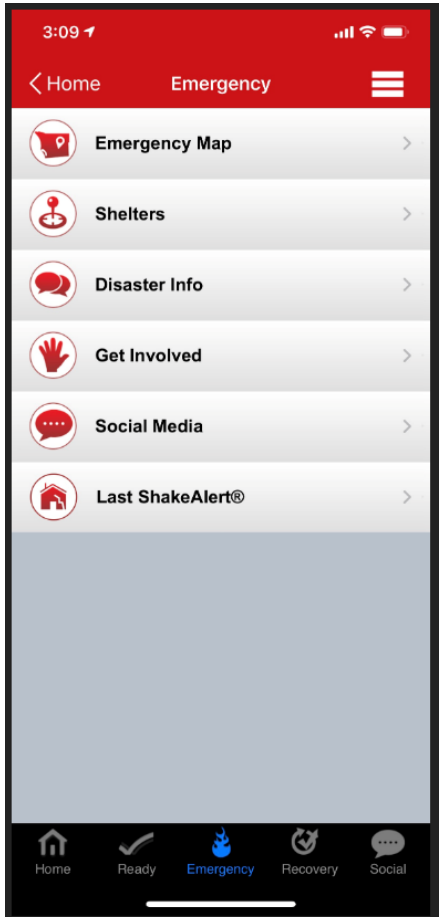
ShakeAlert- Early Earthquake Warning

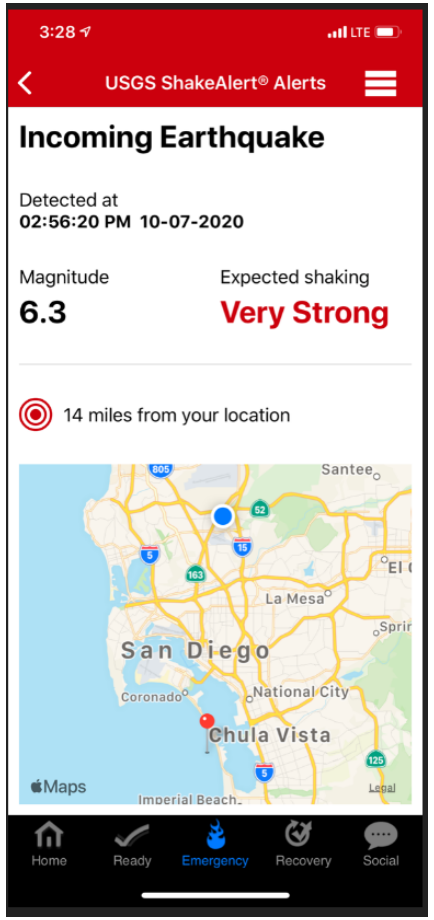
Push Notification & Alarm

Configurable Sensitivity



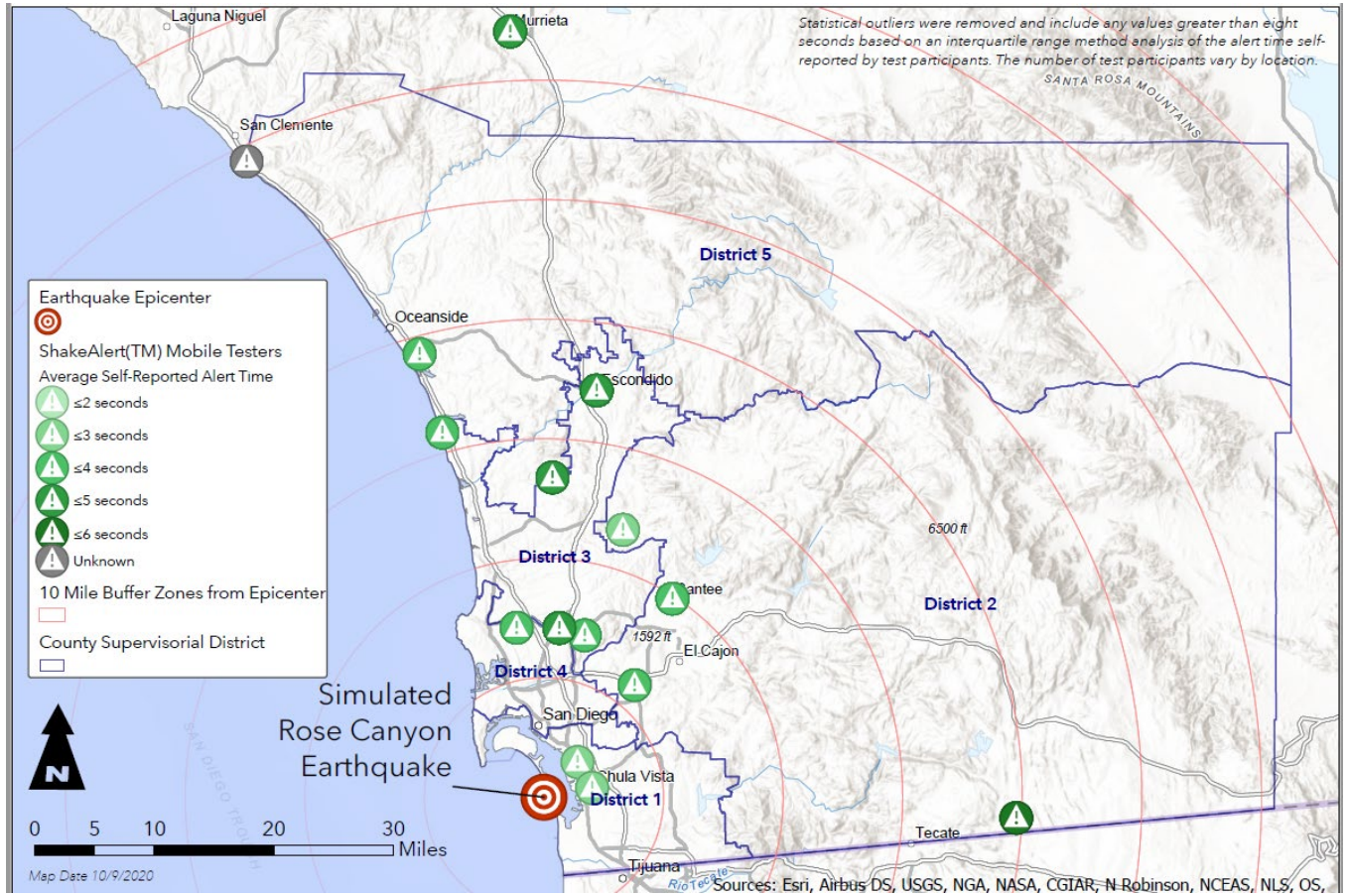
Last ShakeAlert History





ShakeAlert™ Pilot Testing

Approximate Locations of Mobile Testers



- Testers from the County and neighboring jurisdictions

  (Sept 30 through Oct 8)
  - 8 Testers, 3 tests
  - 18 Testers, 5 tests
  - 19 Testers, 6 tests
  - 18 testers, 6 tests
- Android & IOS
- Verizon, AT&T & T-Mobile
- Wi-Fi- only and Cellular-only

Preliminary Test Results-
"Ironing out the Wrinkles"

- Outliers in every round:
  - Some alerts received after 30 seconds or more –But, not repeatable
  - Tester at San Onofre State Beach received only 1 out of 5 alerts
  - Tester with Google Pixel 3 –inconsistent performance due to battery saving and notification settings. Required additional testing outside of group testing

- Each round of testing produced more consistent, successful performance

- Test from October 8, 2020
  - 18 Testers; 5 timed tests
    - Averaged= 4.6 seconds

- All Tests combined:
  - 87% of all alerts were received within 5 seconds
  - 56% of all users received all alerts within 5 seconds

Next Steps

- Complete the ShakeAlert Pilot:
  - Finalize preliminary testing
  - Review Results/Collaborate with USGS on next steps

- Begin Production Planning:
  - Fine tune application performance
  - Expand testing and reporting capabilities to meet USGS requirements
  - Complete Educational Materials (to be included with the Mobile App)
  - Plan production roll-out

Questions?

Thank You!