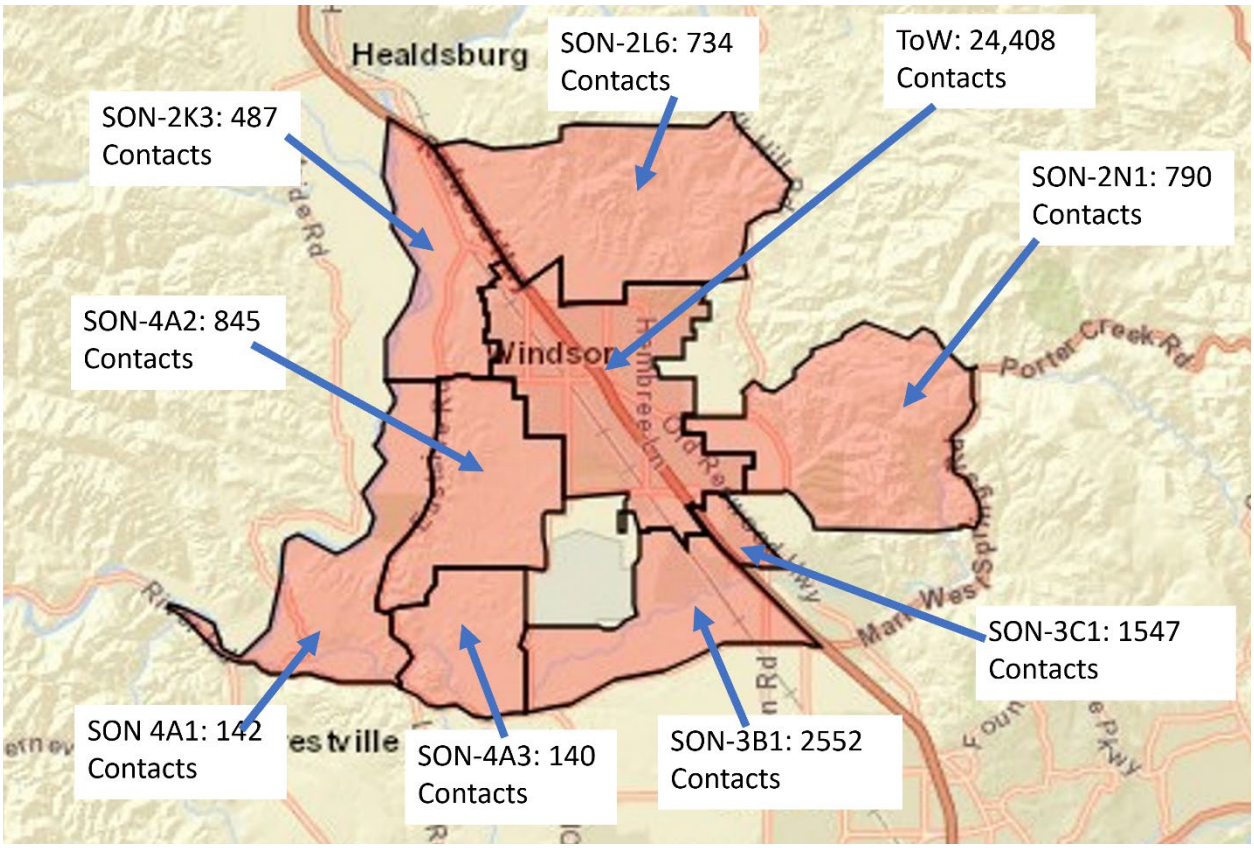
2024 Alert and Warning System Exercise After-Action Report

February 28th, 2024



2024 Alert and Warning System Exercise After-Action Report

Executive Summary

As part of the continuing effort to improve Community Alert & Warning, the Sonoma County Department of Emergency Management (DEM), in conjunction with the Town of Windsor, the Sonoma County Fire District, and the Windsor Police Department conducted testing of the SoCo Alert system (which utilizes OnSolve's CodeRED product as the user-interface for Alert and Warning management).

The SoCo Alert test was conducted in nine contiguous evacuation zones comprising of the Town of Windsor (as one alert zone) and eight surrounding unincorporated zones (SON-2K3, SON-2L6, SON-2N1, SON-3B1, SON-3C1, SON-4A1, SON-4A2, and SON-4A3). These zones were chosen specifically by the Town of Windsor Government Operations Manager because they border the Town and are serviced with utilities originating from the Town itself. Evacuation Zone SON-3A1 was intentionally passed over because it is the zone that includes the Sonoma County Airport, and neither the Department of Emergency Management nor the Town of Windsor wanted the exercise to disrupt Airport operations.

The exercise was conducted on February 28th, 2024. The exercise was given a four-hour window for execution (11AM-3PM), however the actual times required to alert each area were significantly less. The exercise followed the schedule below:

Scheduled Start Time	Actual Start Time	Zone	Launch ID #	End Time	Method
1100	1109	Town of Windsor (All 4 quadrants)	4119644	1127	Scheduled Launch
1110	1111	SON-2K3	4119662	1120	Scheduled Launch
1110	1110	SON-2L6	4119661	1120	Live Launch
1115	1119	SON-3C1	4119668	1135	Scheduled Launch
1115	1116	SON-4A1	4119669	1124	Live Launch
1120	1123	SON-2N1	4119680	1131	Scheduled Launch
1120	1122	SON-3B1	4119677	1129	Live Launch
1125	1125	SON-4A2	4119685	1132	Scheduled Launch
1125	1125	SON-4A3	4119688	1133	Live Launch

Summary of Exercise

Pre-Exercise

On December 19th, 2023, the Sonoma County DEM reached out to stakeholders with the Town of Windsor to discuss conducting an Alert & Warning exercise incorporating the entire Town, in order to test the efficacy of the County Alert & Warning system. The purpose of the exercise was to evaluate the capability of the alert & warning system to contact and notify a large number of contact data points.

Additionally, DEM utilized the exercise to assess Onsolve's "Validata" feature, which removes contact data for phone lines that timed-out during the exercise from the contact database, as they are deemed disconnected or inactive phone numbers.. For this reason, the Town of Windsor was selected to be alerted as one area, which would provide the highest volume of contacts going through the "Validata" process after the exercise.

In order to maximize stress on the system, an additional eight County unincorporated zones were selected to exercise at the same time, with four of the zones alerted via a pre-scheduled launch event, and four of the zones alerted in real time by a DEM Deputy Emergency Services Coordinator, who would serve as the primary alert operator during a no-notice event.

The County Public information Officer (PIO) crafted draft press releases and social media messages and flyers were printed at the request of the community organizations for distribution. County DEM also prepared an online feedback survey to obtain public feedback on the exercise.

Benchmark events that occurred pre-exercise are presented chronologically below (lead agency/agencies in parenthesis):

12.19.23- Initial meeting with stakeholders (DEM/ToW/SoCoFD/Windsor PD)

1.16.24- Initial meeting with Sonoma County Communications Team (DEM/County PIO)

1.12.24- CodeRED database update completed (DEM)

1.17.24- Second meeting with Stakeholders (DEM/ToW/SoCoFD/Windsor PD/County PIO)

1.18.24- Exercise surveys created (DEM)

1.19.24- Exercise information posted on SoCoE, including links to SoCoTest and SoCoEvento (County PIO)

1.30.24- Event flyer provided to ToW for residential distribution (DEM/County PIO)

2.7.24- EXPLAN published (DEM)

2.7.24- Information briefing provided to ToW City Council (DEM)

2.8.24- Social Media advertisement of the exercise begins, with weekly updates (County PIO)

2.14-24- Third (final) meeting with Stakeholders (DEM/ToW/SoCoFD/Windsor PD/County PIO)

2.15.24- BoS briefed on event (DEM Director)

2.20.24- Dress Rehearsal at EOC: Exercise Messaging recorded, alerts designated for pre-scheduled launch were scheduled in SoCo Alert (CodeRED), Spanish translations provided (DEM)

2.22.24- Press Release distributed to local media, cc'd to the BoS (County PIO)

2.26.24- Email sent to Napa County Emergency Services Coordinator to ensure visibility of neighboring County. (DEM)

2.27.24- Final checks in EOC for event (DEM)

Exercise Day

The exercise was planned to start at 11 AM on February 28th, 2024. At 10:15 AM, a final check was conducted of all governmental agencies involved to ensure there were no safety issues, wildfires or other weather emergencies that would indicate cancellation of the exercise. All 9-1-1 dispatch agencies were contacted and informed of the impending alert, as was 2-1-1 Sonoma County which was provided with routing instructions for any resident who had questions.

At 10:45 AM, stakeholders arrived at the EOC to watch the progression of emergency messaging within the designated zones.

Figure 1 - DEM and Exercise Partners at the EOC

The exercise began at 1100 as the first test alert for the Town of Windsor was scheduled for that time. The system began initiating calls at 1109. Sequentially every five minutes, beginning at 1110, a live test alert was issued as was a scheduled alert. After approximately 35 minutes the system completed notification. At 1200, the exercise was completed and ENDEX was declared.

Summary of Results – So Co Alert

General

Overall, the exercise is considered a success as it provided a method to test the alert and warning system, allowed for real-world operation of the system in a live setting, evaluate the capability of issuing mass notifications to a large number of contacts at the same time, educate the community of the alert and warning system limitations and abilities, and emphasized community sign-ups for SoCoAlert. This exercise also identified glitches to make note of in case they occur during real emergency alerts.

The test alert for the Town of Windsor was scheduled to begin at 1100. However, the system did not begin initiating phone calls until 1109. The delay was a result of a few reasons: 1) a scheduled message takes a lower priority than an emergency message in the CodeRED infrastructure; 2) the system queues the number of contact records before it begins calling; and 3) the number of contacts for the Town's alert was 30,590 which could be a large number for the system to queue at one time. Once the system

began making phone calls, it took approximately 19 minutes to complete the phone calls for the test alert.

The test alert for the eight (8) additional zones that were part of the exercise began at 1110 and were done in 5-minute intervals; with two (2) zone messages sent, one as a live message and one as a scheduled message. Table 1 details the zones and if message was sent live or pre-scheduled, along with the actual time sent in the system.

Type	Zone	Alert Sent
Scheduled	Windsor	11:00:05 AM
Live	SON-2L6	11:09:58 AM
Scheduled	SON-2K3	11:10:02 AM
Scheduled	SON-3C1	11:15:06 AM
Live	SON-4A1	11:15:49 AM
Live	SON-3B1	11:20:12 AM
Scheduled	SON-2N1	11:21:19 AM
Scheduled	SON-4A2	11:25:04 AM
Live	SON-4A3	11:25:10 AM

Table 1 – Zones and type of message

Phone calls were initiated within two (2) minutes of sending live messages during the exercise. However, the timeframe for scheduled messages varied between just over 30 seconds to over four (4) minutes, with the exception for the message to the Town of Windsor. This further shows that the system treats scheduled messages differently from live ones, providing us information on procedures during exercises and live events. Table 2 provides the time details of when the test messages were sent, the time the calls started and finished, along with the time duration between each stage.

Type	Zone	Alert Sent	Calls Started:	Calls Finished:	Sent to Start	Start to Finish	Sent to Finish	Number of Contacts
Scheduled	Windsor	11:00:05 AM	11:09:02 AM	11:27:58 AM	0:08:57	0:18:56	0:27:53	30590
Live	SON-2L6	11:09:58 AM	11:10:25 AM	11:20:46 AM	0:00:27	0:10:21	0:10:48	673
Scheduled	SON-2K3	11:10:02 AM	11:11:23 AM	11:20:46 AM	0:01:21	0:09:23	0:10:44	427
Scheduled	SON-3C1	11:15:06 AM	11:19:23 AM	11:35:50 AM	0:04:17	0:16:27	0:20:44	1098
Live	SON-4A1	11:15:49 AM	11:16:51 AM	11:24:33 AM	0:01:02	0:07:42	0:08:44	123
Live	SON-3B1	11:20:12 AM	11:22:01 AM	11:29:00 AM	0:01:49	0:06:59	0:08:48	2185
Scheduled	SON-2N1	11:21:19 AM	11:23:42 AM	11:31:02 AM	0:02:23	0:07:20	0:09:43	712
Scheduled	SON-4A2	11:25:04 AM	11:25:40 AM	11:32:35 AM	0:00:36	0:06:55	0:07:31	770
Live	SON-4A3	11:25:10 AM	11:25:35 AM	11:33:02 AM	0:00:25	0:07:27	0:07:52	125

Table 2 – Time details for message calling and duration

Response Analysis

The alert message included information about providing feedback through a survey, with a link to the survey posted on the SoCoEmergency website. The survey was provided in English and in Spanish. There were 113 responses in the English survey and 3 in the Spanish version. The number of responses in Spanish is in-line with those from past alert and warning exercises.

The overall sentiment towards the exercise was notably positive. Survey responders expressed their thanks for the exercise, noting the importance of enhancing community preparedness. Some also shared that the exercise prompted them to update their contact information or settings for the types of message they receive.

Continued engagement and outreach efforts directed towards the Spanish-speaking community remain imperative during alert and warning exercises. These initiatives serve as opportunities to not only educate but also empower members of the community about the County's alert and warning program. By prioritizing these efforts, we can ensure inclusivity and accessibility, and ultimately strengthen the overall resilience and preparedness of the community.

Based on the responses, there continues to be a need for public education on evacuation zones and general alert and warning practices, with emphasis on public information and warning to ensure the community is aware of the County's alert and warning program. Communication and outreach activities about the exercise proved to get awareness into the community and should be continued in future exercises.

Figure 1 shows that the majority of respondent's live in the Town of Windsor. Of the 19 that responded with other and provided additional comments, eight (8) were determined to live in the Town of Windsor and an additional nine (9) responded that they didn't know their evacuation zone number. There were six (6) responses who marked "Other" that were from individuals who used to live in the Town of Windsor but still had their phone number registered in the system to their old address.

Please select “Town of Windsor” or your Evacuation Zone # if you live in one of the designated zones

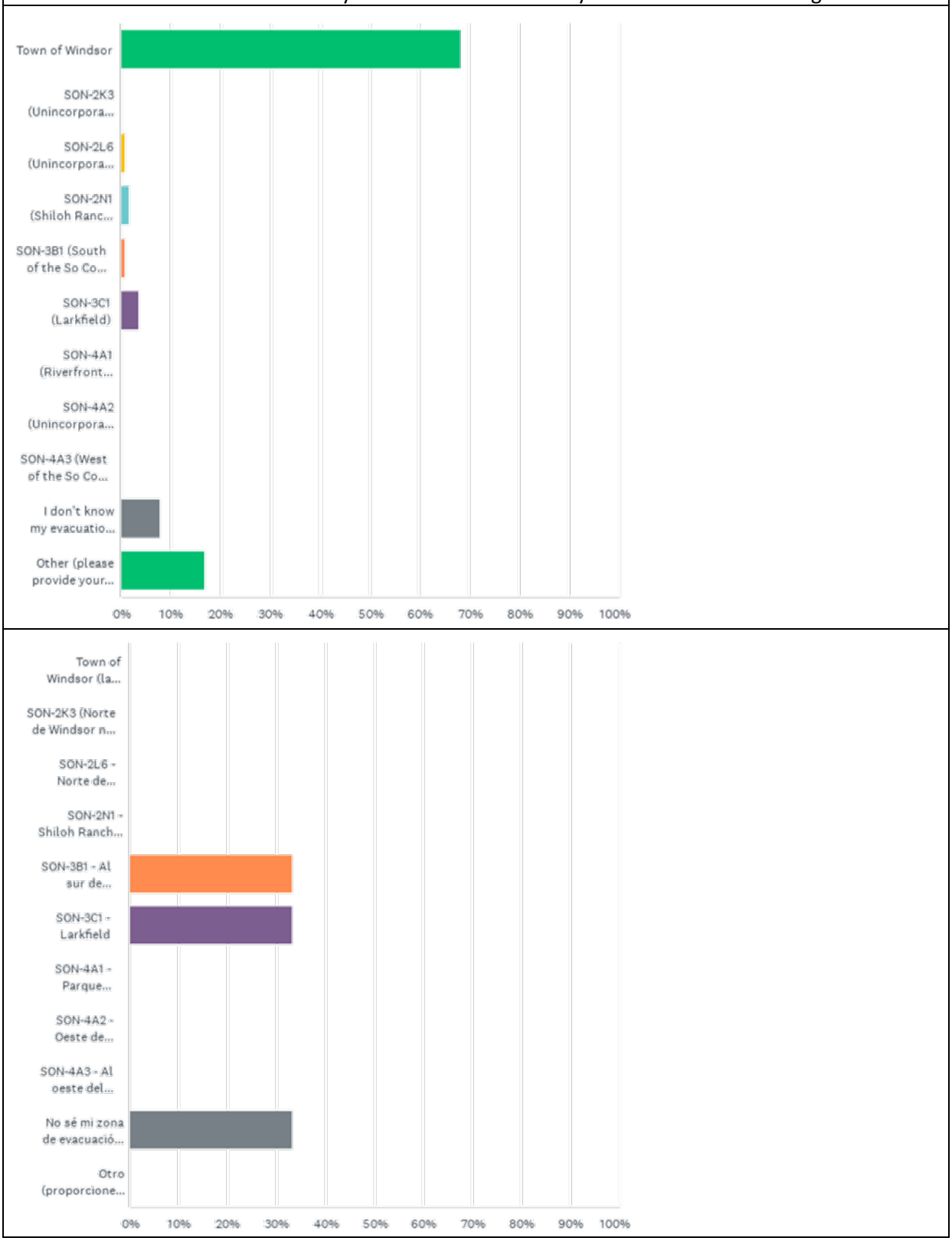


Figure 1 – Survey Responses: Town of Windsor or select Evacuation Zone (Top-English/Bottom-Spanish)

Figure 2 details that the majority of respondents received the SoCoAlert in English, while two (2) of the 3 respondents in the Spanish message say did not. Alerts are sent out in both languages (English and Spanish) at the same time. However, when an alert is received, to hear the Spanish message, the receiver must press "9" on their phone's keypad. Continued community outreach to the Spanish-speaking community about the SoCoAlert system is essential.

Additionally, the survey asked for additional comments and feedback. Responses were received from about half of those who responded to the survey. Based on the comments and feedback provided, community outreach campaigns need to include providing the caller ID phone number with the action of the community to save that phone number as a contact on their phone. Those that responded commented that they believed the phone number to be a spam or junk call and did not answer the phone.

While the alerts for this exercise included phone, SMS text, and email messages, there were several comments suggesting using text messages as part of the alerting method. To ensure they receive SMS messages, community members must opt-in to receive the SMS text alerts. Currently, the contact database is populated using utility contact information, however it does not indicate if the phone number can receive SMS texts.

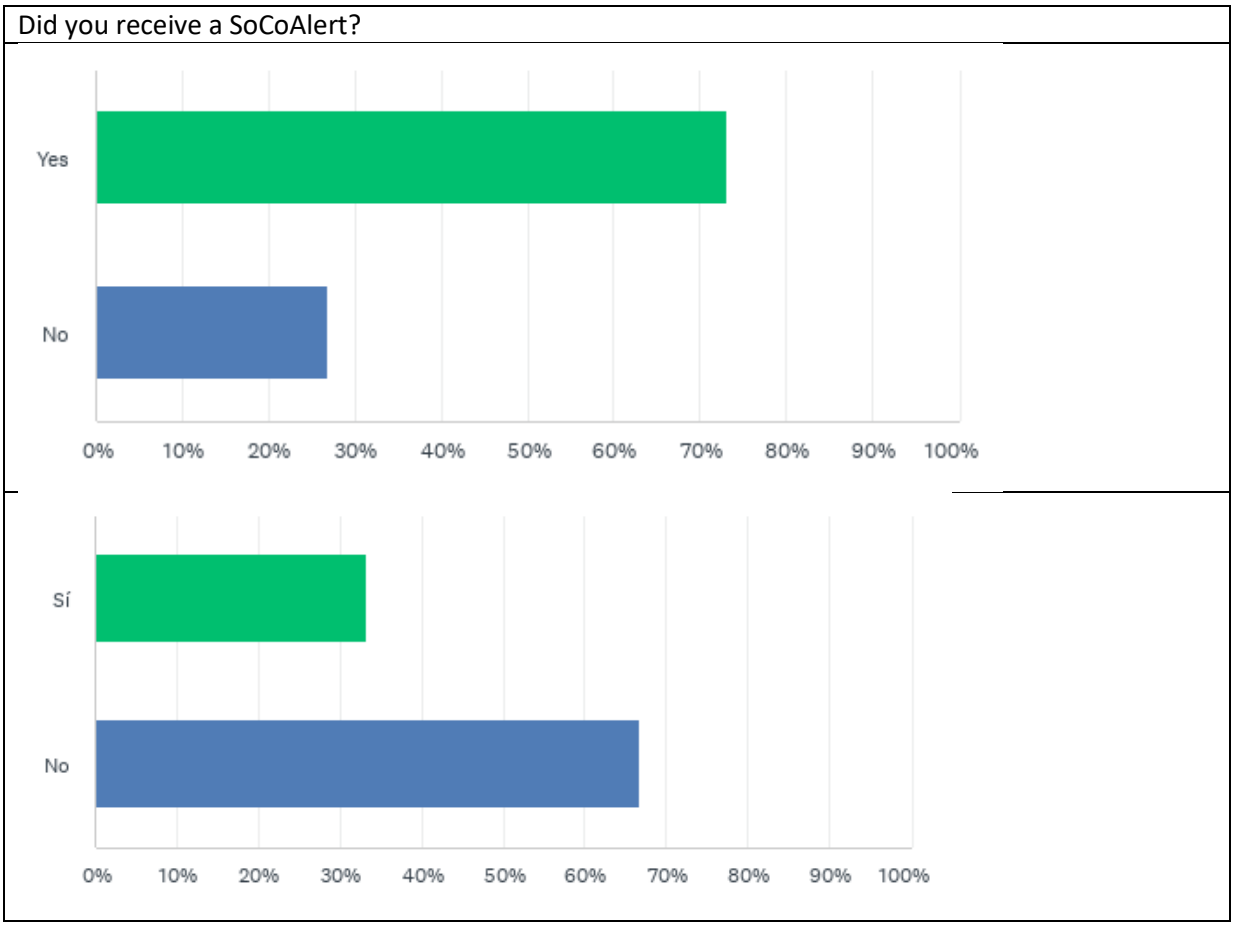


Figure 2 – Survey Responses: "Did you receive an alert?"

Communications to the community was done in many ways and multiple times head of the exercise date. Figure 3 shows that the community was made aware of the exercise through official sources of information, such as the Town of Windsor and County of Sonoma social media and newsletters. Additionally, some found out about the exercise through a local community group or through friends and neighbors. Twelve (12) of the 35 who selected "other", noted that the alert message was the first indicator about the exercise. Such notices highlight the importance of having contact data in the SoCo Alert system come from various avenues, so that there is a chance to make contact with those who might not follow official sources of information and/or are not active in social media.

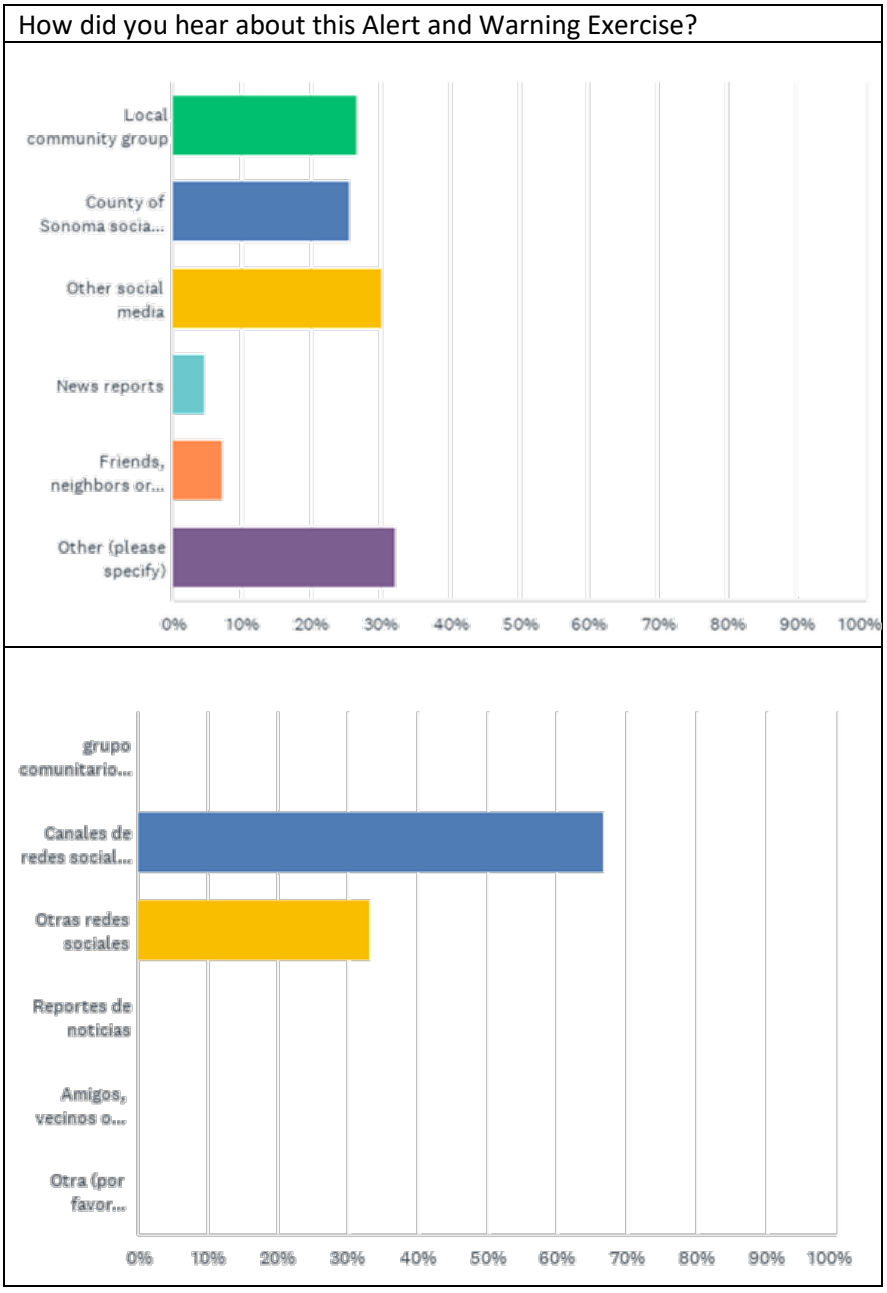


Figure 3 – Survey Responses: "How did you hear about this Alert and Warning Exercise?"

The analysis reveals that a significant portion of respondents acknowledged receiving the alert through the telephone voice message. Figure 4 provides a breakdown of the various methods through which respondents received the exercise alert. Interestingly, among those who opted for "Other," the prevailing trend indicated that they primarily received the exercise message via email, often in conjunction with another method of communication, such as telephone voice. Looking ahead to future surveying for exercises, it's essential to incorporate options that reflect the communication channels utilized in the exercise, including voice, SMS text, and email. This approach will ensure a more accurate representation of the methods the community is receiving the alerts.

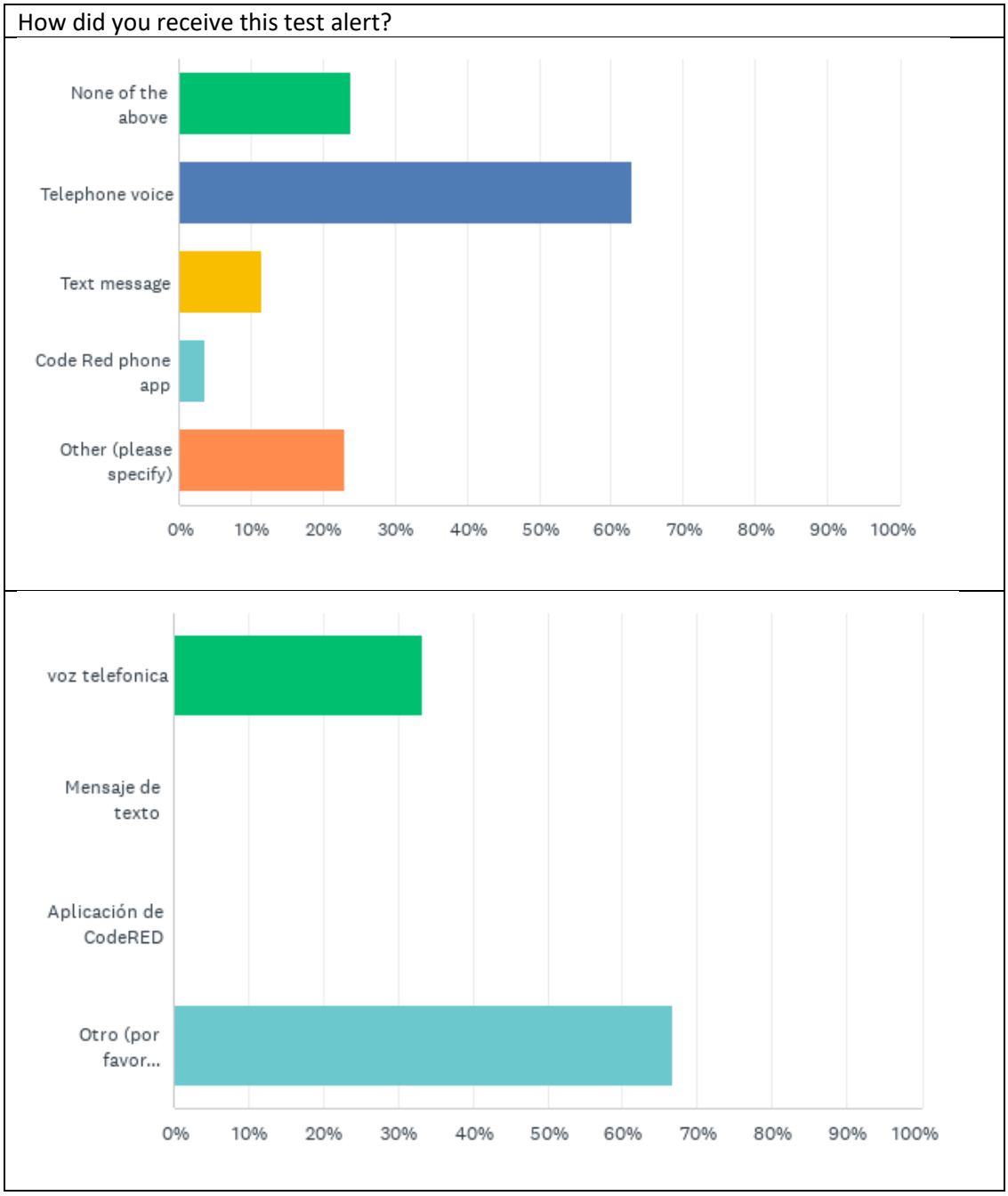


Figure 4 – Survey Responses: “How did you receive this test alert?”

Validata Contact Processing

OnSolve provides the Validata feature, which determines if phone numbers that return with an Operator Intercept or Time Out result after an alert are phone numbers that are disconnected or no longer in service. If confirmed to be inactive, the system removes that contact and phone number from the database. The request to conduct the Validata feature via CodeRED was done following the exercise in the afternoon. OnSolve initiated the process by the end of the week, however it took longer than requested, as part of our account for SoCoAlert, OnSolve provides verified customer contact data from a variety of third-party sources, such as yellow and white pages, home sale records, etc. The addition of this data was overlapped by the Validata process. Both processes were completed March 28, one month after the exercise.

The number of contacts dropped dramatically between the day of exercise to the date the Validata process was completed. Figure 5 is a screenshot that was taken the day of the exercise and shows Town of Windsor contact numbers were 30,256. At the completion of the Validata process and upload of the current OnSolve provided data, the number of contact numbers is 19,835. This resulted in a drop of nearly 10,500 contact phone numbers that the system won't attempt to call should an alert be sent to the entirety of the Town of Windsor.

Figure 5 – Screenshot of SoCoAlert System contacts for Town of Windsor before the exercise

Figure 6 – Screenshot of SoCoAlert System contacts for Town of Windsor after the exercise

Conclusions

The SoCoAlert/CodeRED system works and functions as intended and this exercise confirms that. The system was able to broadcast a message to approximately 30,000 contacts within a relatively short window, sending an alert to various areas simultaneously. The exercise continues to highlight that the system requires a database of contact information to reach community members who are not otherwise connected to "mainstream" forms of communication, such as social media and governmental communication channels. Community awareness of the Alert and Warning Program should continue to be pushed through direct community engagement activities.

The successful operation of the SoCoAlert/CodeRED system is affirmed by this exercise, demonstrating its reliability and effectiveness. During the exercise, the system efficiently disseminated a message to approximately 30,000 contacts across multiple geographic areas within a brief timeframe, effectively alerting those communities simultaneously. However, the exercise underscores the ongoing need for a comprehensive database containing contact details to ensure outreach to individuals who may not have access to traditional communication channels like social media or official governmental platforms. To enhance community preparedness, sustained efforts to raise awareness about the Alert and Warning Program through direct engagement are essential.

Lessons Learned

The following are specific lessons learned from the 2024 Alert and Warning Exercise:

General

- Using the system for scheduling messages must only be done as a supporting activity for an exercise or test. Scheduling an alert during an emergency situation could cause life-threatening situations as a scheduled alert has a lower priority of dissemination over an emergency-level message.
  Recommendations: Provide messaging type and context to alert system users.
- The process of sending out alerts using a scheduled and live demonstration provided more opportunities for alert operators to use the system's alerting features. Alert operators were able to navigate the system in a controlled setting to set up the exercise alert messages ahead of time and in real-time, increasing their knowledge of the platform itself.
- Community Outreach and Engagement is still needed to ensure community members have familiarization on the SoCoAlert system ahead of an emergency. This includes public education campaigns on opting-in to the system, saving the caller ID phone number as a contact, and pressing "9" on the keypad for the Spanish language alert.
    - SoCoAlert.com is the registration website and contains information on the SoCoAlert system.
    - The phone number (866) 419-5000 should be saved as a contact in community member's phones as this is the phone number that will appear when a SoCoAlert is sent. In doing so, the phone call will likely not be filtered by a spam or junk call blocker, and will be recognized by the receiver as an emergency notification.

Technological

- As technology develops, phone operating systems and capabilities evolve. An example of this is the recent integration of voicemail transcription within the Apple iPhone operating system, enabling the conversion of voicemail message into text directly on the device. During the exercise, we were made aware of a community member's transcription, which contained a profane word at the beginning of the transcription message. Upon receiving the notification of this issue, we promptly initiated a retest of the voice messages and allowed the call to go to voicemail. Through our investigation, identified that several contributing factors that resulted in the inclusion of profanity within the transcription:
    - The voice alert message includes an automated prompt to the receiver to press any key or standby for an emergency message.
    - The caller's voicemail greeting, which can vary in length, triggers this prompt to play
    - If the timing is right, the voicemail transcription will pick up the soundbites of the voicemail as the receiver's phone greeting ends.
    - In this case, the transcription picked up the last syllable of the word "message" in the transcription, as the phone was transcribing the voicemail.

  The automated prompt is implemented by the CodeRED platform and operates outside of the SoCoAlert system's control. However, the performance of this exercise produced valuable insights. Uncovering this situation now, rather than during an emergency when crucial alerts are being disseminated, underscores the immense importance of conducting such exercises.

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