

EYEWARN



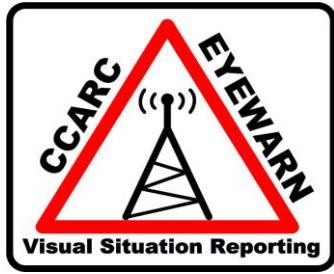
A VISUAL SITUATIONAL REPORTING NETWORK
BY TIM KUHLMAN, PE – KD7RUS,
THE CLARK COUNTY AMATEUR RADIO CLUB



History

- Started in January of 2014 after a conversation with an official at the Clark Regional Emergency Service Agency in Clark County WA.
- During a regional disaster, fire trucks are dispatched to survey the area and report the extent and severity of damage.
- The same visual situation report provide by first responders can be provided by amateur radio operators across Clark County by looking out their home window.





Mission Statement

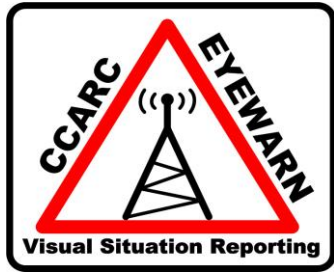
- The EYEWARN network provides additional visual situational awareness reporting to Emergency Management in Clark County Washington [CRESA]
- Utilize the body of Radio Operators [some 2000] many are unaffiliated with any emergency communications operations
- We self activate early - Report damages and injuries.





What We Are, What We Are Not

- EYEWARN has a different mission than ARES
 - We are not a form of emergency communications for local agencies
 - No FEMA Training Required
 - No background check required as a county volunteer.
- Active EYEWARN training is limited to Net Control Stations. Passive training is provided to all hams who partake in the net, listen and follow the rules of the net.
- We self activate or are requested to activate and collect data regarding the situational awareness in Clark County.
- We are not part of the Clark County Emergency Worker Program.
- EYEWARN is not Skywarn. We do not have trained weather observers. We do have a relationship with the National Weather Service to collect and provide weather data during major weather events.



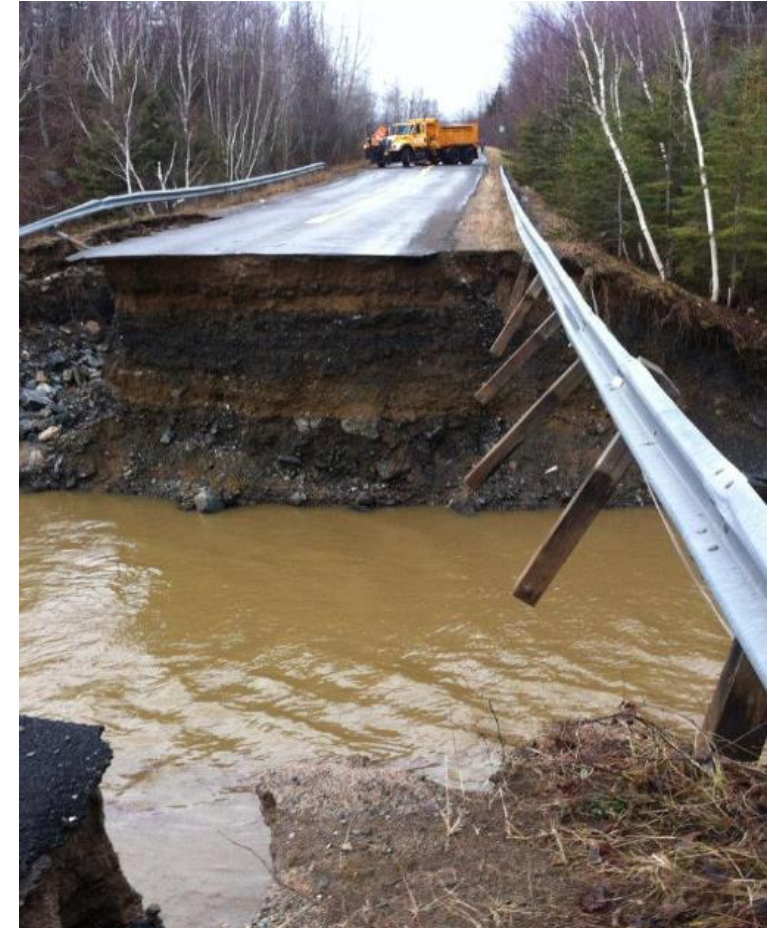
Visual Situation Reports

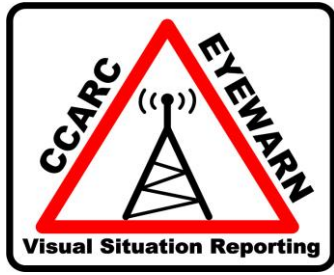
Natural Disasters

- Volcanic Ash
- Earthquake Damage
- Flooding
- Ice Storm
- Tornado Damage
- Landslides
- Wild Fires and Smoke

Other Disasters

- Fumes from Chemical Spill
- Hazardous Material Smoke
- Communications Outage
- Electrical Outage





CRESA Requirements

- Primary interest in critical infrastructure damages:
 - Roads
 - Hospitals
 - Bridges and Highway Overpasses
 - Power Lines
 - Cell towers
 - and other properties.
- EYEWARN is establishing a forward observer program.





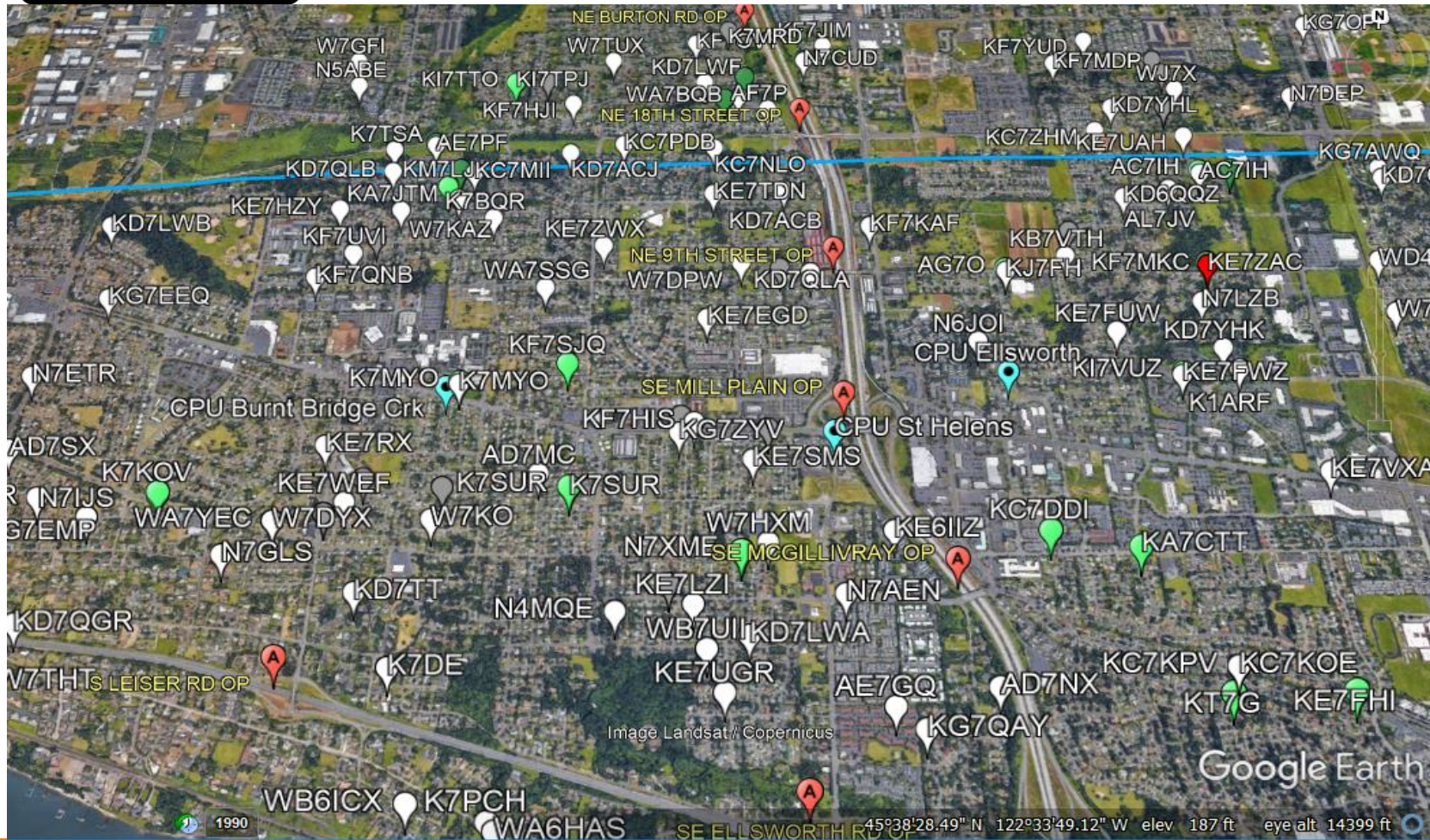
Forward Observer



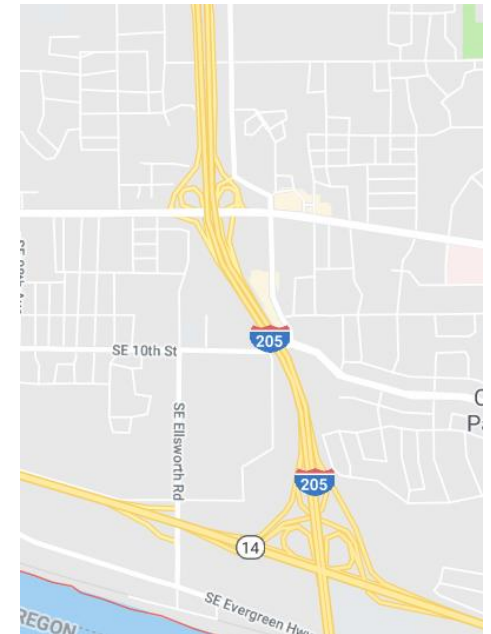
- Hams identified in areas close to specific assets and are recruited as EYEWARN Forward Observers.
- We have started a project to identify radio operators near critical items
- They will report damages they can safely observe from their location
- As with any EYEWARN visual situation report, a forward observer only needs a radio license. They do not need to be a member of the club, ARES, CERT or any other organization. Once identified, a forward observer may be called directly by the EYEWARN NCS in lieu of waiting for them to check into a net.



Hams in Clark County

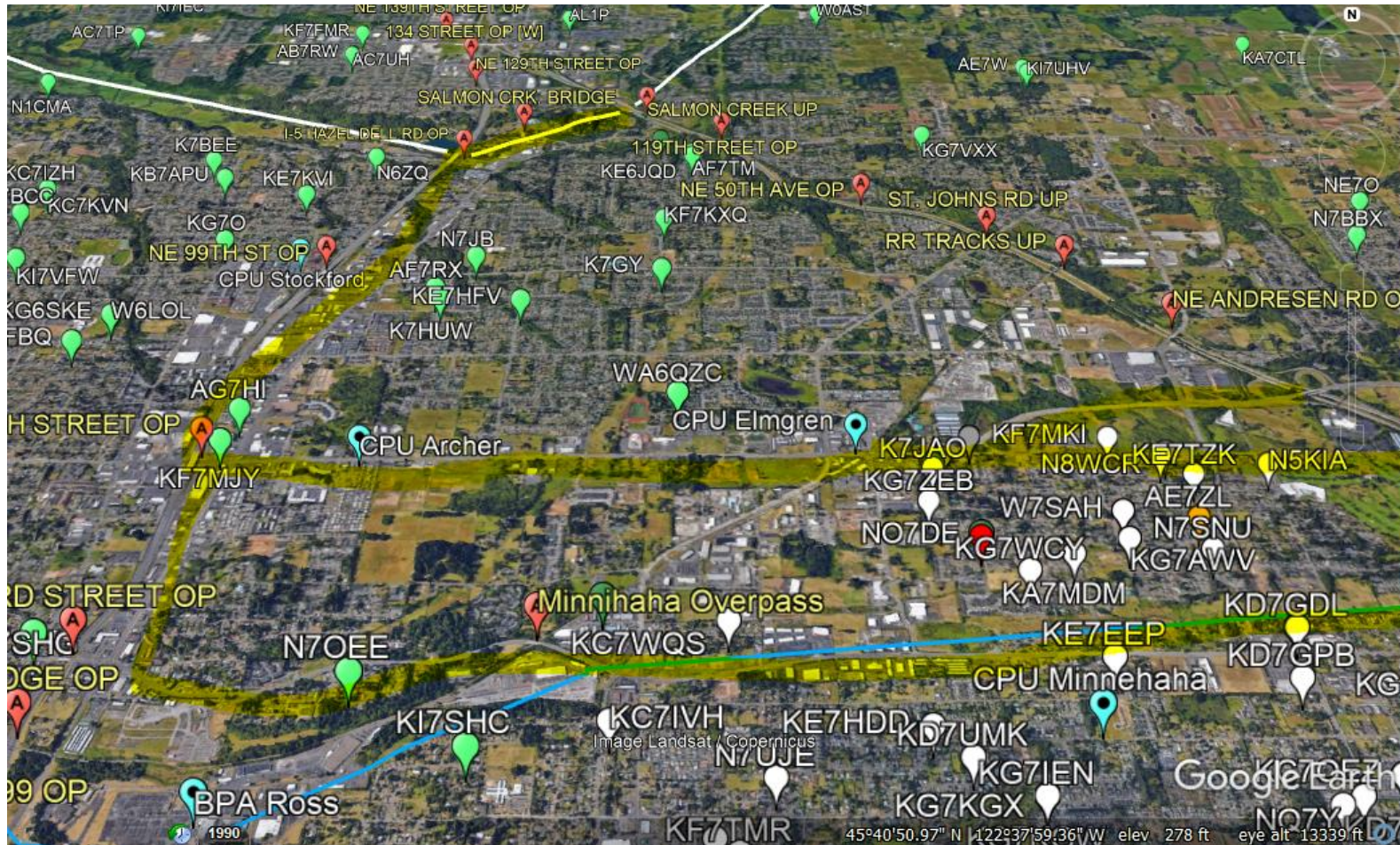


"A" Pin showing critical points on I-205 (North – South) and Hwy 14 (East-West)

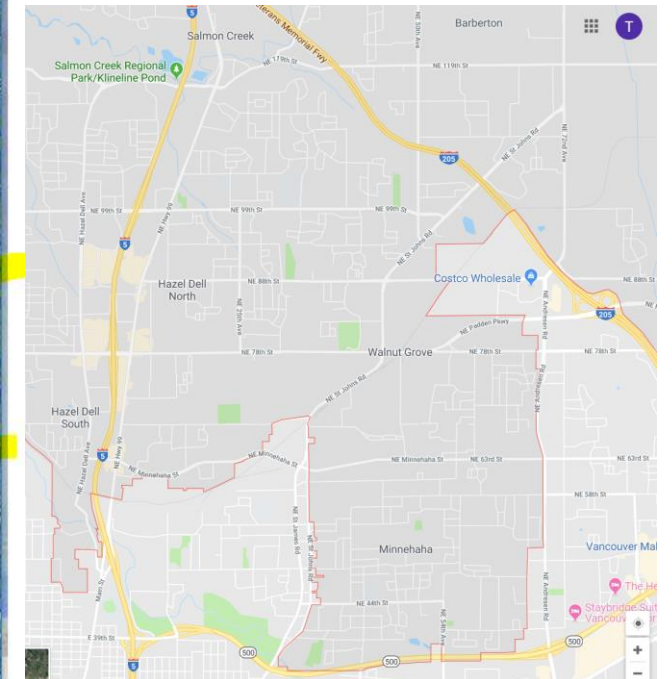




CRESA Requirements

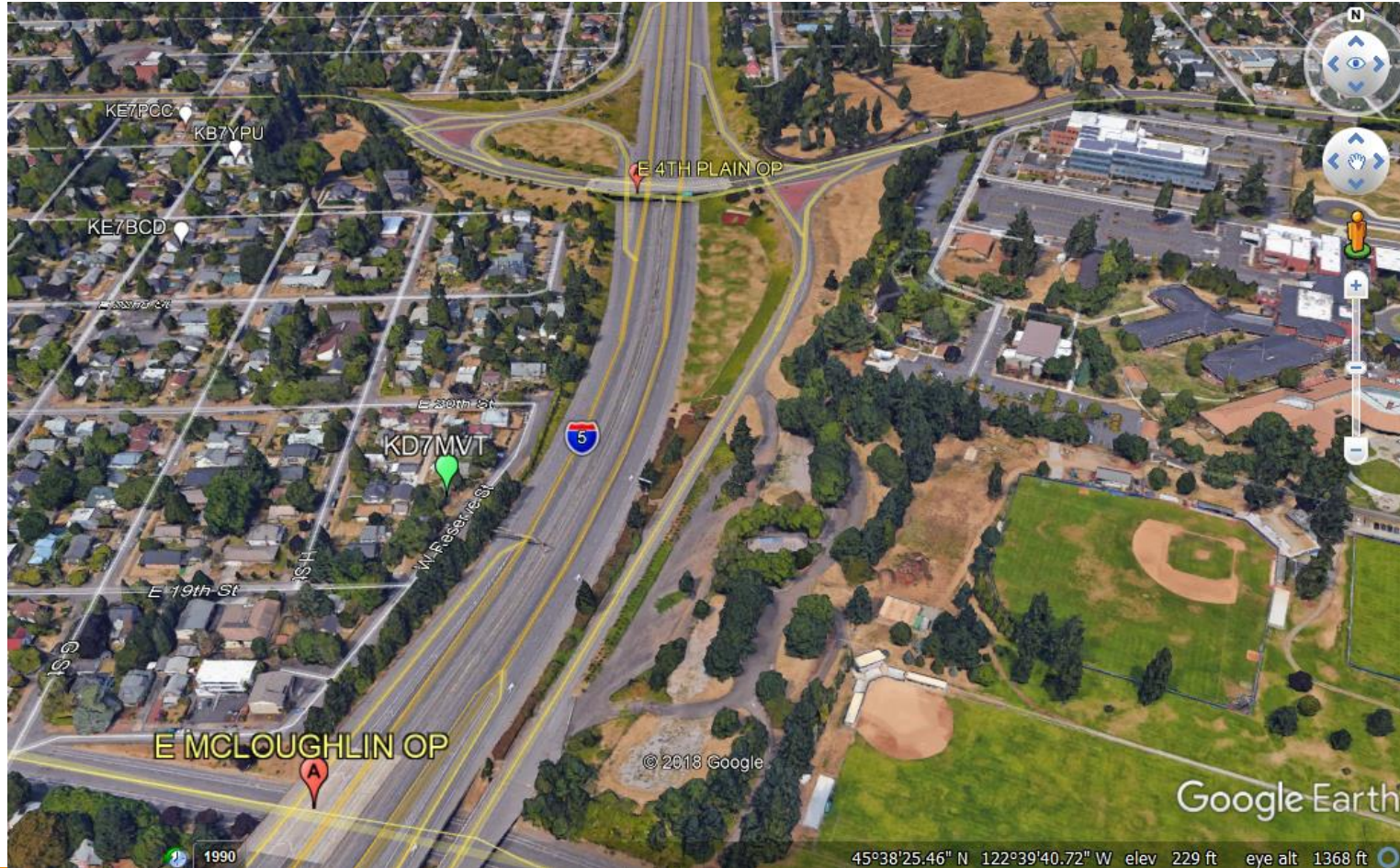


Near I-5 Corridor:
Micro islands created if
overpasses collapse.





CRESA Requirements



4 Hams located near the 4th Plain Overpass and the East McLoughlin Over Pass.



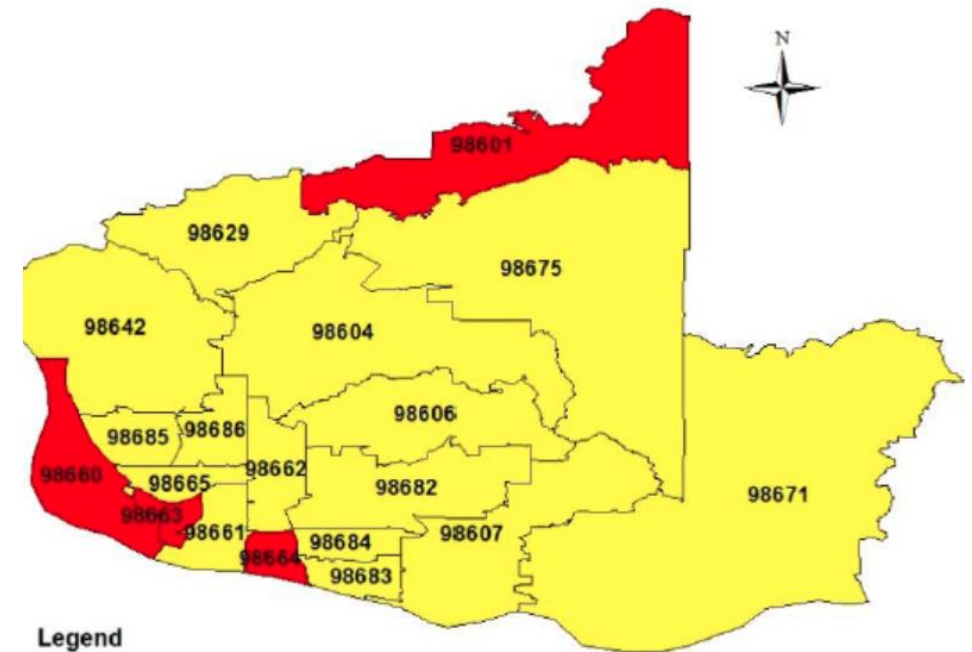
Operations

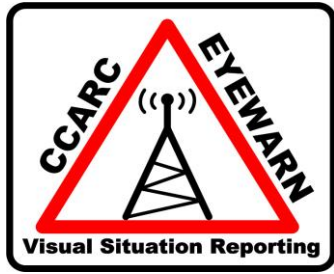
- EYEWARN Director – James Newsome, KE7ZAC
- 12 Trained NCS Operators rotate duties for a weekly net
- Weekly Nets are held on the 147.240 CCARC repeater on Thursday at 7:00pm
 - Second Thursday of the month has extra time at the end of the net for radio checks
 - Third Thursday of the month runs a simplex net on a 2 meter or 70 centimeter frequency.
- The NCS Operators use a script that can be adapted for an exercise scenario or an actual event.
- At the beginning of the net, the NCS asks for off duty NCS operators to check in first and identify if they have cell phone service. An off duty NCS is immediately selected as a backup.
- The NCS identifies the exercise scenario and the simple questions (e.g. yes, or no). Hams are asked to check in by zip code. Mobile stations check in at the end with their location.



Operations

- For an exercise, we keep the questions simple. The point is to exercise the NCS in running a scripted net and to collect data. The more they exercise, the less like they are to get flustered during an actual emergency.
- For an actual event, the NCS operators may swap out after 1 or 2 hours. Once again questions may start at a high level to assess where the damage is and then go back to a zip code and the stations reporting to get more detailed information
- NCS are encouraged to have a base/mobile type of setup in their home with battery backup. The use of handheld radios for NCS are discouraged.





Operations

- Challenges:
 - We are not a broadcast service. Our mission is to collect information on damages from Hams not to broadcast information.
 - We are not a 911 service. We will encourage a person with an emergency to call 911 if they have phone or cell service. We ask for our NCSs to report if they have a cell phone or phone service in case a back up NCS checking in can relay the information.
 - We do not encourage mobile reports. We do not want hams driving around looking for damage and getting in the way of first responders or getting in danger themselves.





Training

- Active Training for NCS
 - NCS operators go through a 1 hour training session.
 - Net Resources (the script, the data log)
 - Our mission
 - What to do if they receive an emergency request.
 - How to control the net if reporting stations do not pay attention to the questions.
 - How to deal with interference
- Passive Training for Reporting Stations
 - There is no formal training for reporting stations and none is required.
 - Passive training is provided by running an exercise every week. This creates a body of operators that recognize the pattern of the check-in. This helps with the discipline if the new people checking in.
 - Additional information for participants is also provided on the EYEWARN webpage.



Starting Your Own EYEWARN

- www.EYEWARN.net
- Resources are available and free to use at the EYEWARN webpage.
- The name “EYEWARN” and the Logo are registered trademark and are free to use with a licensing agreement with the Clark County Amateur Radio Club.
- The scripts are available on the website for any organization to use and to tailor to their group. Contact us and we will send you the native Word files.

EYEWARN Net Control Station (NCS) Script

Any Net Control Station operator can self-activate the EYEWARN Net in the event of a natural or man-made disaster where situational information gathering is desired for emergency management to determine the allocation of responding resources. Large scale disasters should be obvious, but a brief reason for the net should be given.

If it is a training net indicate it as such below, choose a scenario and associated questions. In the event either or both repeaters are inoperative, choose one of the simplex frequencies.

*When conducting a **simplex** training net, make an announcement 5-10 mins - prior to net start on the -147.24 – repeater. “QST..Tonight’s EYEWARN net at 7:30 will be a Simplex Check In on 146.43” [Or the alternate chosen simplex frequency]. “At this time - All stations – please QSY to 146.43. This is [call sign]”*

QST... QST... QST... This is _____ Net Control Station for the Clark County Amateur Radio Club EYEWARN Disaster Information Gathering **[training]** Net.

ANNOUNCEMENT: Are there any announcements from the Clark County

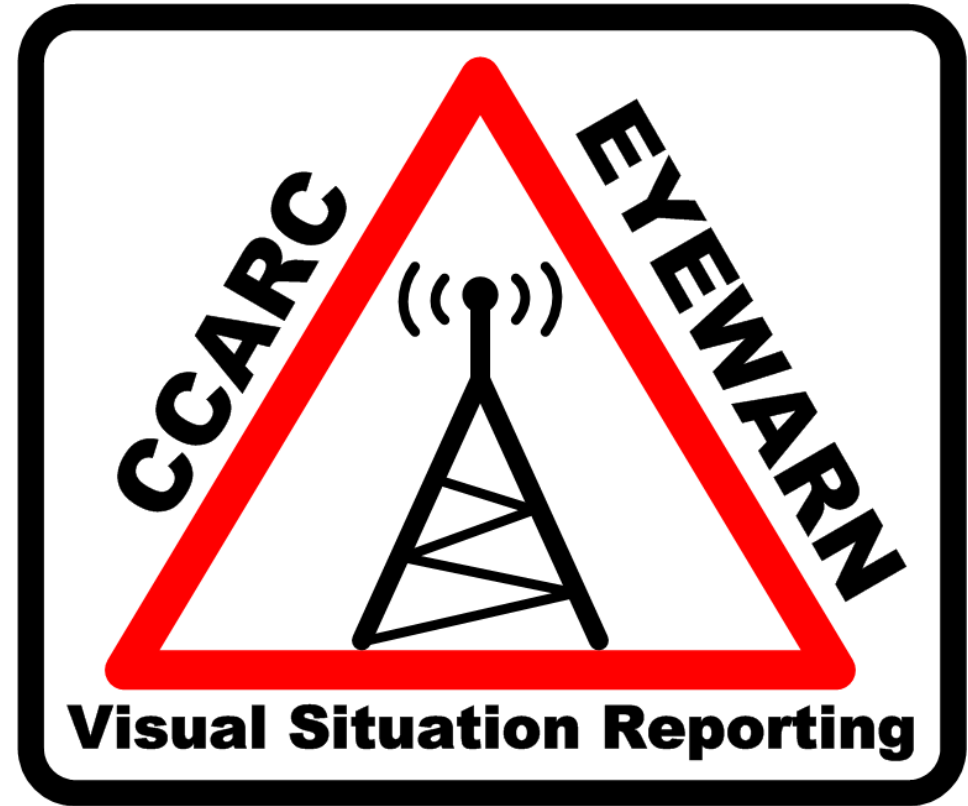


Starting Your Own EYEWARN

- Outreach:
 - Luzerne County, PA, N3SRO, Assistant Emergency Coordinator
 - Point Roberts WA, Amateur Radio Club (KG7PR)
 - Jackson County ARES in Oregon
 - Hood River K7VEW EMCOMM
 - Hawaii
 - Arizona
 - NWS Portland Oregon Office
 - Coos Bay County

Questions?

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