

# **Yolo County Amateur Radio Emergency Services Emergency Communications Plan**

---

## **Mission Statement**

The principal mission of the Yolo County Amateur Radio Emergency Services (hereafter, Yolo County ARES) group is to provide emergency communications for the communities within the County of Yolo when called upon.

## **Statement of Purpose**

In Section 97.1 of the Amateur Radio Service rules, the FCC describes the fundamental purpose of the Amateur Service, which includes these five principals:

1. Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
2. Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.
3. Encouragement and improvement of the amateur radio service through rules which provide for advancing skills in both the communications and technical phases of the art.
4. Expansion of the existing reservoir within the amateur radio service of trained operators, technicians and electronics experts.
5. Continuation and extension of the amateur's unique ability to enhance international goodwill.

## **Emergency Communications Plan**

The Emergency Communications Plan of Yolo County ARES endorses and promotes all of the above statements listed in the Statement of Purpose. The Emergency Communications Plan also addresses the role of Yolo County ARES activities in potential emergency situations, and with the various government and nongovernment agencies which may request its services. It will establish emergency response for Yolo County ARES members to follow depending on the type of emergency, and the agency being served.

Most important, this emergency plan is an ever-evolving guide for Yolo County ARES members to follow in emergency situations. Since each situation is unique, flexibility to provide an adequate response to each is a necessity.

The members of Yolo County ARES are to conduct periodic drills, training and other instruction to ensure readiness in implementing the Yolo County ARES Emergency Response Plan.

## **Description of Yolo County ARES**

1. Yolo County ARES is comprised of FCC licensed amateur radio operators who have voluntarily registered their capabilities and equipment for public communications duty.
2. Yolo County ARES operates under federal regulations, which state that amateur radio public service is to be rendered without compensation of any kind.
3. A goal of Yolo County ARES is to provide trained amateur radio operators for emergency communications for civilian, government and general public under the guidance of the Yolo County ARES Emergency Coordinator (EC) and leadership team.
4. Yolo County ARES seeks to develop and maintain cooperative relationships with the: Yolo County office of the American Red Cross's Capitol Region Chapter (hereafter, Yolo Red Cross); Yolo County Office of Emergency Services (hereafter, Yolo County OES); Yolo County Sheriff's Department; the California Department of Forestry and Fire Protection (hereafter, CAL FIRE); Woodland Healthcare clinic and hospital; and with volunteer units that work with these agencies (see Appendix <>).

5. Yolo County ARES, under existing agreements of understanding between the American Radio Relay League (ARRL) Sacramento Valley Section and the Yolo Red Cross, will provide emergency communications services for Yolo Red Cross.
6. Yolo County ARES has established a base station located within Yolo Red Cross. This base station may be used by the appointed Net Control Operator for an emergency response.
7. Yolo County ARES uses the amateur radio repeater, KE6YUV, located on Berryessa Peak in Yolo County, as its primary repeater. Yolo County ARES also uses the amateur radio repeater, N6QDY, located on Bald Mtn. in Yolo County, as its secondary repeater. A third amateur radio repeater, K6JRB, located on the campus of the University of California, Davis, may be used as well. All of these facilities are for emergency preparedness nets, training, drills, and emergency situations. The operating frequencies for the repeaters are listed in Appendix A, Band Plan.
8. Activating the Emergency Response Plan
  - 8.1. In the event of an emergency in Yolo County, Yolo County ARES can be notified by a private or public service agency, by a member of Yolo County ARES or other amateur radio operator. The EC or Assistant Emergency Coordinator (hereafter, AEC) should be notified by radio or telephone as soon as possible.
  - 8.2. Once an emergency or potential emergency condition has been identified, the EC, AEC, or designated Net Control Station (hereafter, NCS), will contact Yolo County team members by email and/or phone. Throughout this call up period, the NCS will announce the appropriate emergency level over the primary repeater. All team members will standby and monitor the repeater. If indicated, a roll call will be conducted.
9. Mobilization Procedure
  - 9.1. Upon awareness or notification of an incident requiring emergency communications, members of Yolo County ARES will monitor the primary repeater and be ready to check in when called upon by the NCS. In the event that the primary repeater is not available, Yolo County ARES members are to monitor the simplex frequency of the repeater along with monitoring the secondary repeater.

The high frequency (hereafter, HF) bands of 75M phone frequency of 3.987 MHz, will also be used for communicating outside the range of the repeaters.

The alternate 40M emergency frequency of 7.230 MHz, may also be used. If ARES teams throughout the Sacramento Valley Section use these listed HF frequencies, the designated NCS of Yolo County ARES is to move up or down the band approximately 10 kHz or more to find an open frequency.

- 9.2. The EC or AEC in charge may assume net control, or he or she may assign a Net Control Station operator. The NCS usually shall not be located in the area affected by the emergency. The Yolo ARES NCS may be located at Yolo Red Cross, the Yolo County Fairgrounds, a member's home station, or a mobile communications van.
- 9.3. Yolo County ARES may activate an Emergency Control Center of Yolo County ARES team members when appropriate, for wide-scale emergencies. The designated site of the Emergency Control Center is Yolo Red Cross, located in the City of Woodland. Wide-scale emergencies may require assistance from operators outside Yolo County, on a mutual assistance basis to ensure adequate staffing. All requests for outside assistance must go through the EC and/or the Section Emergency Coordinator (hereafter, SEC).
- 9.4. When an emergency exists outside of Yolo County, the EC may ask for volunteer Yolo County ARES team members to standby and be available to respond if and when requested by another EC or official agency. However, adequate coverage for Yolo County must be maintained at all times during an emergency.

## 10. Duties of the Net Control Station

- 10.1. Initial duties of the NCS will be to develop a roster of available ARES members and coordinate the assignment of these operators with the EC or AEC in charge.
- 10.2. The NCS will maintain a list of assignments and establish shifts of no greater than twelve hours in duration.
- 10.3. The NCS will also develop and maintain a list of amateur radio operators who are not registered ARES, but who volunteer their assistance. Assignments from this list will be coordinated with the EC or AEC, after a brief orientation and proper registration.
- 10.4. Liaison station will be assigned to the following repeaters (see Appendix A):
  - 10.4.1. Within Yolo County (required):
    - 10.4.1.1. The Berryessa Amateur Radio Klub's (hereafter, BARK), KE6YUV repeater.
    - 10.4.1.2. The Valley Emergency Repeater Association's (hereafter, VERA), N6QDY repeater.
    - 10.4.1.3. The UC Davis Amateur Radio Club's (hereafter, UCDARC), K6JRB repeater.

- 10.5. Outside of Yolo County (if required):
  - 10.5.1. Sacramento Amateur Radio Club's (hereafter Sacramento ARC), W6AK repeater.
  - 10.5.2. Sacramento ARES', N6ICW repeater.
  - 10.5.3. Sacramento Valley ARES', WD6AXM repeater.
- 10.6. The NCS will maintain on-the-air discipline to ensure efficient and effective operations.
  - 10.6.1. Tactical call signs will be used to denote location or function to facilitate communications. To conform to FCC rules and regulations, FCC assigned call signs need only be used at the end of each communication and at least every ten minutes during a communication.
- 10.7. The NCS operator(s), assistance NCS, or an assigned monitor will establish and maintain the Incident Radio Communication Plan for the duration of the emergency (see Appendix <>), and maintain a log of all radio traffic and incidences which will serve as a permanent record of the emergency.
- 10.8. If communications cannot be maintained due to poor propagation or signal strength, the NCS will assign relays at suitable locations to be determined by the nature and extent of the emergency.

## 11. Operations

- 11.1. Stations will normally direct all communications through NCS except when traffic is classified as an emergency. The use of good judgment determining what constitutes an emergency is essential.
- 11.2. Formal message traffic should be in writing and signed by the originating official to ensure authenticity and accuracy.
- 11.3. Message handling and precedence will be according to ARRL Form 218, Relief Emergency and Routine Message (see Appendix <>). The protocol for Yolo County ARES is to use plain language in all communication conducted on its assigned VHF frequencies. Communications conduct on the HF frequencies will use the "Q" system as described in Appendix <>. The specific form used is the ARRL Form 244, Amateur Radio Disaster Welfare Message (see Appendix <>).
- 11.4. Formal message traffic should always be in standard ARRL form, and numbered consecutively by the originating station.

11.5. When processing Disaster Welfare Inquiries (hereafter, DWIs), the standard Red Cross protocol and format contained in Red Cross Client Information and Release Form 2079I-1 (see Appendix <>), may be used and will be converted to ARRL/National Traffic System (hereafter, NTS) DWI format before transmitting.

11.6. Digital modes may be preferred for high volume point-to-point communications between network hubs and as part of an integrated all-mode network.

## 12. ARES mutual assistance frequencies for the Sacramento Valley Section.

12.1. For inter-county command and control communications, mutual aid, and administrative purposes; whether it be operations, or (more likely) logistical, the information listed below are designated for use by ARES leaders, official emergency stations, and other appropriate emergency communications traffic. (See Appendixes <> and/or <> for additional information.)

12.2. For local/on-scene, tactical, and all routine and welfare traffic, please make your contact and move to another frequency when possible. Use simplex whenever possible. Appendix <> and/or <> shows mutual assistance frequencies for ARES.

## 13. Drills, Tests, and Training

13.1. The Yolo County ARES Net meets, on the air, every Monday evening at 2000hrs (8pm), local time, on the KE6YUV repeater. This repeater is available to Yolo County ARES for the dissemination of information such as bulletins, drill announcements, tests, training, and actual emergencies.

13.2. Yolo County ARES meets monthly for a meeting of members and/or training. The meetings are every third Tuesday of each month and starts at 1900hrs (7pm), local time, at the Yolo Red Cross in the City of Woodland.

13.3. The EC or a designated AEC may activate an unannounced drill, test, or simulated call up to test readiness.

13.4. Training functions may include participation in local public service events and other activities that improve skills in communication, organization, operating discipline and judgment; and formal meetings, classes, drills, and training sessions.

13.5. Yolo County ARES strongly encourages participation in public service events to both provide service to communities and to allow members to gain operating experience.

## 14. Emergency condition nomenclature.

### 14.1. Levels

14.1.1. Level One – All Clear. No potential or actual emergency conditions that may require Yolo ARES operations have been identified.

14.1.2. Level Two – A potential emergency activation may occur in Yolo County or elsewhere. Standby and prepare for possible activation.

14.1.3. Level Three – An emergency or disaster exists. A Net has been activated. Monitor the Net frequency for further instruction.

### 14.2. Watches and warnings.

14.2.1. Severe Thunderstorm Watch – A severe thunderstorm watch will be issued when conditions are favorable for development of severe thunderstorms. Standby and prepare for possible activation.

14.2.2. Severe Thunderstorm Warning – A severe thunderstorm warning is issued when severe thunderstorms are occurring and have been spotted or detected by weather radar. The National Weather Service of Sacramento (hereafter, NWS), defines a severe thunderstorm as having winds 50kts (58MPH) or hail greater than  $\frac{3}{4}$ " in diameter. A Net may be activated. Monitor the Net frequency for further instructions.

14.2.3. Red Flag Fire Watch/Red Flag Watch – A hazardous condition issued by the NWS equivalent to a Level Two emergency and implemented by CAL FIRE. All ARES/VIP Volunteers standby for possible activation.

14.2.4. Red Flag Fire Warning/Red Flag Warning – Same as Red Flag Watch above, but red flag patrols and lookouts will be activated at the discretion of CAL FIRE.

## **Appendix A**

Yolo County ARES Band Plan

Approved: March, 2012

### **Primary Repeater Frequencies**

<b>LEVEL</b>	<b>NAME</b>	<b>FREQUENCY</b>	<b>OFFSET</b>	<b>PL/CTCSS</b>	<b>Organization</b>
Primary	R1BARK	146.9700 MHz	Negative (-)	123.0 Hz (T Sql or Encode/Decode)	BARK, KE6YUV
1 <sup>st</sup> Backup	R2VERA	147.2550 MHz	Positive (+)	123.0 Hz (Tone or Encode Only)	VERA, N6QDY
2 <sup>nd</sup> Backup	R3UCD	145.4500 MHz	Negative (-)	203.5 Hz (T Sql or Encode/Decode)	UC Davis ARC, K6JRB

### **Primary Simplex Frequencies**

<b>NAME</b>	<b>FREQUENCY</b>	<b>COMMENTS</b>
ARES1	147.5100 MHz	Yolo County ARES Local, On-Scene Frequency
ARES2	147.5400 MHz	Yolo County ARES Local, On-Scene Frequency
ARES3	445.9150 MHz	Yolo County ARES Local, On-Scene Frequency
ARES4	445.1800 MHz	Yolo County ARES Local, On-Scene Frequency
RED	147.4200 MHz	Unofficial American Red Cross Simplex Frequency
CALL2	146.5200 MHz	National VHF Calling and Wilderness Frequency
CALL7	446.0000 MHz	National UFH Calling and Wilderness Frequency

### **Secondary Simplex Frequencies**

<b>NAME</b>	<b>FREQUENCY</b>	<b>COMMENTS</b>
CALL6	52.5250 MHz	National HF FM Calling and Wilderness Frequency
CAL6A	50.4000 MHz	National HF AM Calling and Wilderness Frequency
ARES5	51.5400 MHz	Yolo County ARES Local, On-Scene Frequency
ARES6	51.5600 MHz	Yolo County ARES Local, On-Scene Frequency