LANE ARES/RACES EMERGENCY COMMUNICATIONS MANUAL

This is the working operations manual for Lane County ARES/RACES. The working documents for Lane ARES/RACES members are, at a minimum, a copy of this manual, the current Lane County ARES/RACES Frequency Chart and the Lane Packet Frequency Chart.

This version is dated June 1, 2011 and supersedes all earlier versions. This is the Lane County addendum to the ARES/RACES Communications Failure Plan and Manual for the State of Oregon.

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OUR MISSION

We are a Lane County group of Amateur Radio Volunteers who provide supplemental radio communications when existing communications systems are disrupted or overloaded, or if a communications system needs to be temporarily inserted into an area. We forward tactical messages for state, county and city governments by voice and hard copy digital modes.

We provide most of the equipment and all of the service at no cost to the public or to the agencies we assist. While Amateur Radio is a hobby, participating in emergency communications is a commitment. We are called “amateurs” because we do not charge for our volunteer services, but we are professional in all that we do to help when other communications fail.

ACTIVATION

Under Oregon law, the local county's Emergency Manager is charged with making formal declarations of emergencies. As such, the Emergency Manager would normally be the one to activate the unit in Lane County on a county wide emergency.

Note we are not a "self" activating organization. However, should ARES members, especially the EC or senior Assistant EC’s, become aware of an emergent situation, appropriate initial steps should be taken to be ready for activation. Be sensible in this regard.

In the event of an emergency, Lane ARES volunteers should monitor 146.680 for instructions. “Monitor” means listen on the frequency, but do not take any action unless either directed by an authorized ARES leader or under specific pre-written instructions or procedures.

Localized incidents, or public service events, may be handled by sub-parts of the ARES unit, under specific procedures set up for the incident by the ARES leadership.

OUR TRAINING

Our training program has three major components:

1. knowledge based training [certification in FEMA ICS courses 100, 200, and 700];

2. skill based training [certification in EMCOMM 1 and basic operating skills]; and

3. performance based training [certification in advance operating skills, packet operations, HF and HF Pactor operations, Net Control Station operations, and intermediate and advanced Technician skills].

Once trained, our members are expected to continue their training by participating in simulated emergency drills, public service events, and to participate in the two state wide Simulated Emergency Tests held each year.

A more detailed memorandum of our training requirements and procedures can be found on our website, www.laneares.org, under the “Documents” tab.

LOCAL OREGON DIGITAL ARES NETWORK STATIONS

Lane RMS packet station	W7EUG-10	145.030
Lane Pactor station	W7EUG	3.591 mHz “center”

NOTE: the State ARES/RACES simplex VHF frequency is 146.460.

EOC – NET CONTROL STATIONS

Entity	Call	Packet Mailbox
Lane County	W7EUG	W7EUG-3
Eugene	W7COE	W7COE-3
Springfield	W7SFD	W7SFD-3
South County	W7ZQE	W7ZQE-3
Red Cross	W7PXL	W7PXL-3

OVERVIEW – NET FREQUENCIES

	County	Eugene	Springfield	West Lane
Resource Net	146.680	146.880	146.740	146.800**
Tactical Nets	Chart	147.080	146.440	442.575

** From County to West Lane, try 145.310 repeaters if the 146.800 repeater does not give coverage to Florence area.

NOTE: local peer-to-peer VHF Airmail is on 145.010 or such simplex frequencies as the Net Control Station may announce for packet operations.

NOTE: we handle tactical messages, but if any Health and Welfare traffic is received, we forward them to the appropriate Oregon NTS net.

NET CONTROL OPERATORS

Various members will be trained as Net Control Operators, who should take control of any Lane County Resource Net, to log in EM COMM operator check-ins, and make appropriate assignments for the tactical nets.

OVERVIEW - NET PROCEDURES

1. **Resource Nets.**

A. Our Resource Net is the place to start taking check-ins of EMCOMM operators, give tactical assignments, and monitor the event, incident, or disaster until all sub nets are closed

B. Unless the situation requires something else, it is recommended that the check-ins be taken by area; the practice will usually be to assign EMCOMM operators to a tactical location

close to them as they check in.

TIP: Take outer areas first and then spiral in - for example, might do East County, then North County, then West County, then South County, followed by West Eugene, Eugene, East Springfield, and then Springfield.

C. Be mindful of the frequencies used by adjacent counties for their resource net and tactical nets.

2. **Tactical Nets.**

A. Each Tactical Net usually will be operating in a geographic area, but also may be by the function that net is covering.

B. The frequency to be for any Tactical Net is determined by the Resource Net's Net Control Operator, but will generally follow the Lane ARES Frequency Chart.

C. Tactical calls usually identify by the location or by the purpose of the tactical net - Springfield Justice Center, Oakridge Fire, etc.

NET CONTROL STATION OPERATOR RESPONSIBILITIES

1. **Stay on the Air.** The Net Control Station ("NCS") must be able to stay on the air under any conditions, including loss of commercial power and telephone service. The NCS should have battery or generator power sufficient to stay on the air for 72 hours.

2. **Use Control Scripts.** When managing a Net, the NCS must use directed net control procedures for the purpose of taking check-ins and then making tactical assignments of each of the volunteers who checked into the net.

3. **Use the Frequency Charts.** The NCS should use the frequencies laid out in Lane ARES Frequency Chart and Packet Frequency Chart. Any Resource Net should come up on the proper frequency for the served agency or geographic area, announce the opening of the net as a directed net, and commence NCS duties.

4. **Use Relays if appropriate.** The NCS should not hesitate to use relays where appropriate. It may also be appropriate to pass the NCS function off to another NCS operator under the procedures in place with a particular served agency or under existing emergency plans.

5. **Logging Practices.** The NCS of a Resource Net must keep a complete log of check-ins and log assignments of operators upon checking in. When a NCS runs a Tactical Net, the NCS operator should keep a complete log of all communications, all messages, and all traffic handled on each shift of that Tactical Net. The goal is a complete permanent record of the incident or event, but the log need not be an elaborate one.

6. **Staffing Positions.** In making assignments when acting as resource net, the NCS should limit assignments to a maximum of 12 hours; that includes the operator acting as NCS, either under standing plans or on the fly, who must appoint another ham as the next NCS for the next shift.

NOTE: After the resource check-ins is concluded, the NCS at the Resource Net will remain on frequency for re-checks, liaison, and any other help that a Tactical Net may need. Do not hesitate to call on the original Resource Net frequency if you need guidance, more people or to report any change in the facts or circumstances on which the tactical assignments were originally made. That frequency remains your life line for help.

TIP: both the ARES Frequency Chart and the ARES Packet Frequency Chart are available for download as PDF files on Lane ARES website, www.laneares.org [see the Downloads tab].

TIP: Additional Packet specific materials are on the Packet Interest Group website, www.lanepig.org [see Downloads tab]. All EM COMM ham volunteers should keep copies of the current Charts in their shack, car and with their Go Kits.

TIP: Other helpful information as “appendices” to this manual, can be found under the Downloads tab at www.laneares.org.

PRE-PLACED EMCOMM STATIONS or ANTENNAS

VHF/UHF:

Sacred Heart – University District Hospital - VHF
Sacred Heart – Riverbend – VHF/UHF
City of Eugene EOC - VHF/UHF
Lane Central 911 Center - VHF/UHF
Springfield Justice Center - VHF/UHF
McKenzie Willamette Hospital – VHF/UHF
Springfield FS #3 - VHF/UHF
Court House - VHF/UHF
Red Cross -VHF/UHF/HF
Lane Memorial Blood Bank – VHF
Cascade Manor – Eugene – VHF/UHF
Goshen FD – VHF/UHF
Lane Public Health – VHF/UHF, including radio
Lane Public Health Annex – VHF/UHF, including radio
Lane Rural Fire & Rescue – Franklin Road, VHF/UHF
Pleasant Hill Fire Station – VHF/UHF
Oakridge FD – VHF

HF/Digital Stations:

OADN station, Lane County Courthouse – HF/VHF/UHF, Pactor 3
City of Eugene EOC - VHF/UHF/HF including Pactor 3
Cottage Grove Hospital - VHF/UHF/HF including Pactor 3
LC Sheriff's Comms Van - VHF/UHF/HF including Pactor 3
Central 911 Center - VHF/UHF/HF including Pactor 3
McKenzie Willamette Hospital - VHF/UHF/HF including Pactor 3

West Lane County:

Florence Justice Center - VHF/UHF/HF including PACTOR 3
Peace Harbor Hospital - VHF/UHF
Florence Fire Station – VHF/UHF/HF including PACTOR 3

Lane County Pending:

Mohawk Valley FS #1 - VHF/UHF
Leaburg FS - VHF/UHF
Lane Rural Fire and Rescue – Alvadore - VHF/UHF

VHF/UHF FREQUENCY INFORMATION

2 METER FREQUENCY PLAN

Principal Repeaters:

Lane County EOC	146.68
City of Eugene EOC	146.88
City of Springfield EOC	146.74
Cottage Grove/South	146.76
Central Region	145.45 [PL 123]
Mohawk Valley	146.74, 145.45 [PL 123]
McKenzie Valley	145.37
Willamette River	146.98
West Lane County	146.80, 145.31
Red Cross	146.72
LCSARO portable repeater	145.25 – if set up

Note: PL tone is PL 100 unless otherwise noted.

2 METER SIMPLEX FREQUENCIES

146.420	
146.440	City of Springfield, EARS
146.460	South Regions; also West Lane - west of Hwy 126 tunnel
146.480	West Regions
146.500	
146.520	National Calling Frequency
146.540	McKenzie River Regions
146.560	Central and Willamette Regions
146.580	Hospitals, Lane Memorial Blood Bank
147.400	
147.420	Red Cross, Valley Radio Club
147.440	
147.460	City of Eugene EOC
147.480	Linn County
147.500	Douglas County
147.510	Benton County
147.520	
147.540	
147.560	Willamette Region
147.580	Lane County EOC

National Calling Frequency: 146.520 Simplex

440 FREQUENCIES INFORMATION

Simplex Frequencies:

441.550
441.575
441.600
445.000
445.975
446.000
446.025
446.050
446.075

Repeater Frequencies:

440.425	[+]	PL-100	K7TVL	Mary’s Peak, linked, OR conn
440.850	[+]	PL-100	W7ZQE	Cottage Grove area
441.125	[+]	PL-141.3	K7QT	Eugene
441.325	{+]	PL-100	K7UND	Coburg, no link, IRLP
441.650	[+]	PL-100	K7THO	Cottage Grove/Bear, linked, OR
441.675	[+]	PL-100	K7UND	Oakridge/Wolf Mt, linked, OR
441.700	[+]	PL-186.2	KC7NOW	Salem
441.975	[+]	PL-100	W7CQZ	Buck Mt
442.075	[+]	PL-100	W7EXH	Blue River/Hagen
442.125	[+]	DPL/DCS 125	K7THO	Eugene north, linked, OR
442.900	{+]	PL-100	W7EXH	Eugene
443.025	[+]	PL-156.7	W7ZQE	Cottage Grove
443.050	[+]	PL-162.2	W7SLA	Walton/Walker Ridge
443.100	[+]	PL-100	W7ZQD	Blue River/Hagen
443.500	[+]	PL-100	W7EXH	Eugene/Prairie, linked, OR
443.800	[+]	PL-???	K7RPT	Eugene
443.950	[+]	PL-103.5	N7QOR	Eugene

Note: the “linked, OR” refers to the linked repeater system running across the state; more information on this system is on the Oregon Connection site, www.oregonconnection.org and other repeater group sites throughout Oregon.