



Tactical Communications: 700 MHz Radios and LWIN

Louisiana Department of Health
Office of Public Health
Bureau of Community Preparedness

Louisiana Wireless Information Network (LWIN)

The National Strategy for Homeland Security and the **Louisiana Homeland Security Strategy** identify emergency preparedness and response as critical missions. A major initiative in both strategies is to enable **seamless communication** among **all responders** to an event or emergency and to improve **information sharing** and **systems**.

Louisiana Wireless Information Network (LWIN)

The Louisiana Wireless Information Network (LWIN) is the **largest statewide radio system in the country**. It provides daily voice communications to more than **84,000 users** at the Federal, State, local and nongovernmental levels. Of these users, more than **70 percent** are from local jurisdictions. LWIN provides **95 percent in-building coverage** to the nine (9) largest metropolitan areas in the State. In 2015, there were an average of **12 million push-to-talk (PTT) transmissions a month** on LWIN. Planned major expansions will increase system capacity to accommodate additional users over the next 10 years.

Louisiana Wireless Information Network (LWIN)

Currently LWIN operates with:

- 135 active tower sites
- Four (4) mobile tower sites
- Two (2) mobile repeater sites
- Four (4) mobile satellite dishes
- Six (6) generators on wheels
- Four (4) masters sites

Users enjoy **95 percent portable on-street radio coverage** throughout the State. With such extensive coverage, responders now experience near seamless communications across Louisiana.

The system is **fully maintained** by the State and charges **no fees** to its users.



General System Requirements

LWIN is an Internet Protocol (IP) network-based and Project 25 compliant trunked system (P25 system). It operates primarily in the **700 MHz and 800 MHz bands** and be capable of providing voice and data. The P25 system operates **95 percent or better coverage** when using a portable radio **inside a building** within the metropolitan areas of the State as identified in the Plan and **95 percent or better coverage** when using a **portable street-level radio** in all other areas of the State.

LWIN System Coverage Map



How to Access LWIN

The State of Louisiana **authorizes access** to the statewide LWIN system, for:

- **Authorized Federal and State first responder agencies.**
- **Authorized local entities** that wish to operate on the system that have eligibility in the Public Safety Radio Pool as described in Federal Communications Commission (FCC) Rules and Regulation (47 CFR Part 90).
- **Other entities** vital to the health, safety and welfare of the citizens of Louisiana.

LDH Fleet Map

	ZONE 8/ 700 *OPH	ZONE 9/ 700 *OEP	ZONE 10/ 700 *HRSA	ZONE 11/ 700 *LDH EOC	ZONE 12/ 700 *INTEROPERABILITY	ZONE 13/ 700 *COORDINATION - 1	ZONE 14/ 700 *COORDINATION - 2	ZONE 15/ 700 *COORDINATION - 3
LOC	CH. NAME	CH. NAME	CH. NAME	CH. NAME	CH. NAME	CH. NAME	CH. NAME	CH. NAME
C1	*OPH-REG1	*A-OHSEP	*HRSA-REG1	*BCP-TAC1	*STATE-1	*R1-CRDCALL	*R4-CRDCALL	*R7-CRDCALL
C2	*OPH-REG2	*B-OHSEP	*HRSA-REG2	*LDH-TAC1	*STATE-2	*R1-CRDTK1	*R4-CRDTK1	*R7-CRDTK1
C3	*OPH-REG3	*C-OHSEP	*HRSA-REG3	*LDH-TAC2	*STATE-3	*R1-CRDTK2	*R4-CRDTK2	*R7-CRDTK2
C4	*OPH-REG4	*D-OHSEP	*HRSA-REG4	*LDH-TAC3	*STATE-4	*R2-CRDCALL	*R5-CRDCALL	*R8-CRDCALL
C5	*OPH-REG5	*E-OHSEP	*HRSA-REG5	*LDH-TAC4	*INTEROP-1	*R2-CRDTK1	*R5-CRDTK1	*R8-CRDTK1
C6	*OPH-REG6	*F-OHSEP	*HRSA-REG6	*OPH-TAC1	*INTEROP-2	*R2-CRDTK2	*R5-CRDTK2	*R8-CRDTK2
C7	*OPH-REG7	*G-OHSEP	*HRSA-REG7	*OPH-TAC2	*INTEROP-3	*R3-CRDCALL	*R6-CRDCALL	*R9-CRDCALL
C8	*OPH-REG8	*I-OHSEP	*HRSA-REG8	*OPH-TAC3	*INTEROP-4	*R3-CRDTK1	*R6-CRDTK1	*R9-CRDTK1
C9	*OPH-REG9	*L-OHSEP	*HRSA-REG9	*OPH-TAC4	*INTEROP-5	*R3-CRDTK2	*R6-CRDTK2	*R9-CRDTK2
C10	*OPH-HQ	UNPROGRAMMED	*HRSA-COORD	*HRSA-TAC1	*INTEROP-6	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED
C11	*OPH-SE1	UNPROGRAMMED	*HRSA-EMERG	*HRSA-TAC2	*INTEROP-7	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED
C12	*OPH-SE2	UNPROGRAMMED	*REGROUP	UNPROGRAMMED	*INTEROP-8	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED
C13	*OPH-SE3	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	*INTEROP-9	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED
C14	*OPH-EOC	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	*INTEROP-10	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED
C15	*OPH-RSS	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED
C16	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED

LDH OPH Fleet Map

USED BY:	LDH OPH	Hospitals	LDH OPH
	ZONE 8/700 *OPH	ZONE 10/700 *HRSA	ZONE 11/700 *LDH EOC
LOC	CH. NAME	CH. NAME	CH. NAME
C1	*OPH -Reg 1	*HRSA - Reg 1	*BCP - TAC 1
C2	*OPH -Reg 2	*HRSA - Reg 2	*LDH - TAC 1
C3	*OPH -Reg 3	*HRSA - Reg 3	*LDH - TAC 2
C4	*OPH -Reg 4	*HRSA - Reg 4	*LDH - TAC 3
C5	*OPH -Reg 5	*HRSA - Reg 5	*LDH - TAC 4
C6	*OPH -Reg 6	*HRSA - Reg 6	*OPH -TAC 1
C7	*OPH -Reg 7	*HRSA - Reg 7	*OPH -TAC 2
C8	*OPH -Reg 8	*HRSA - Reg 8	*OPH -TAC 3
C9	*OPH -Reg 9	*HRSA - Reg 9	*OPH -TAC 4
C10	*OPH -HQ	*HRSA -COORD	*HRSA -TAC 1
C11	*OPH -SE1	*HRSA - EMERG	*HRSA - TAC 2
C12	*OPH -SE2	*REGROUP	UNPROGRAMMED
C13	*OPH - SE3	UNPROGRAMMED	UNPROGRAMMED
C14	*OPH - EOC	UNPROGRAMMED	UNPROGRAMMED
C15	*OPH-RSS	UNPROGRAMMED	UNPROGRAMMED
C16	UNPROGRAMMED	UNPROGRAMMED	UNPROGRAMMED

700 MHz Radio Just In Time Training

To turn on the radio:

Turn the ON/OFF/Volume Control knob clockwise on the far left of the radio opposite of the antenna.

(If turning on the EF Johnson, there will be a start-up sequence with a SELF TEST then the zone will display then the channel. During the Self Test, a power-up tone will be heard unless the test is unsuccessful. An error message will be displayed if the radio is not working. If turning on a Motorola radio, the screen will be on the home screen immediately.)

To turn the radio off:

Turn the ON/OFF/Volume Control knob counter-clockwise until it clicks.

Channel/Mode Select (16-Position Select Knob)

To select a channel/mode:

Turn the Channel/Mode Select knob to the desired position.

The new name will appear on the display.

If the channel/mode you selected is unprogrammed, repeat the above step.

ZONE SELECTION FOR 2500 MOTOROLA RADIOS

To select a zone:

1. Press the button on the left side of the radio directly below ZONE (button with one dot).
2. Select the desired zone by moving the left and right arrows.
3. The zones will change showing the selected channel in that zone. Use the Fleet Map to determine if the desired zone has been reached.
4. Once the desired zone is reached, press the HOME button.

ZONE SELECTION FOR EF JOHNSON RADIOS

To select a zone:

1. Press the up and down arrows in the middle of the front of the radio until the desired zone appears on the LED screen. *There will be a pause then the name of the channel will appear.*

ZONE SELECTION FOR APX 4000 MOTOROLA RADIOS

To select a zone:

1. Press the button on the left side of the radio directly below ZONE (button with one dot).
2. Select the desired zone by moving the arrows up and down.
3. Once on the desired zone, press the ZONE button again or the HOME button.

NOTE: For both the 2500 Motorola and EF Johnson radios, the 700 MHz zones/channels will have the star “*” symbol before their name. The 800 MHz zones will not have this star, and the message will change to “Out of Rng” on the EF Johnson radios and “Out of Range” on the Motorola radios when they are on these zones.

Transmitting over the radio:

Use the Push-To-Talk (PTT) button on the side of the radio to transmit your message over the radio. Remember to push to talk and release (the button) to listen. When the PTT button is depressed, other users cannot transmit over the radio. These users will only hear a sustained tone when pushing the PTT button.

DEMONSTRATION

QUESTIONS