

2012 Recommended Radio Programming Instructions For Priority Emergency Interoperability Channels In the Migration to Narrowband In compliance with the Texas Statewide Interoperability Channel Plan (TSICP)

Purpose

To assist agencies with prioritizing VHF/UHF emergency interoperability channels to program in responder radios with limited channel capacity.

Programming Interoperable Channels

There are 21 VHF national **narrowband (NB)** interoperable channels and two State of Texas VHF narrowband interoperable calling channels. There are eight VHF **wideband** interoperable channels. ***What if your portable or mobile radio will only hold 32 channels or less and you must also maintain local channels?***

- Determine the channel capacity of the radio, including talk-groups or zones. (If your radio has the capability of multiple talk-groups, there may be more channel capacity than is realized.)
- If the radio has multiple talk-groups/zones, determine the channel capacity of those groups.
- Determine how many local “operable” channels will be needed.
- Determine what disciplines you need to talk to – i.e. LE, EMS, Fire, etc.
- Until 12/31/2012, the wideband “Texas” interoperable channels will continue to be used, so you may need to keep at least some of them.
- Establish a priority list of interoperable channels to keep.

For example, after loading the necessary “operable” channels, the radio is limited to 16 interoperable channels, and the radio belongs to a fire department. Until 12/31/2012, the wideband interoperable channels (“Texas” channels) will continue to be used. Therefore, eight channel slots could be used for them. This will provide the ability to communicate with multiple disciplines in addition to air-to-ground.

VHF **Wideband** Interoperable Channels

1. TEX LAW1
2. TEX LAW2
3. TEX LAW3
4. TEXTFIRE1
5. TEXTFIRE2
6. TEXTFIRE3
7. TEXTMED1
8. TEX AIR2

This shows ALL of the VHF **wideband** Interoperability frequencies that are used in Texas. These will be replaced with the national **narrowband** interoperable frequencies on January 1, 2013.

- The radio now has eight more channel slots available. Keeping in mind this radio is with a fire department, if all six of the interoperable VHF NB **VFIRE** channels were added, that would leave two channel slots. If **VCALL10** was added, it could be used in many MCP/Dispatch situations that have narrowband programmed. Of the six VHF NB interoperable repeater pairs, **VTAC36** is recommended by the National Interoperability Field Operations Guide (NIFOG) as a preferred channel, and due to the wide frequency

spacing, it will be the most common one used. This could complete the radio programming for the 16 open channel slots.

- After 12/31/2012, the wideband channels can be replaced with narrowband. The **VTAC11-14** generic channels could be the next priority, followed by the other disciplines.
- If the radio belonged to a LE or EMS agency, the interoperable channel emphasis would be less on fire channels and more on those specific to that discipline, or they might include more generic channels.

1	VCALL10	12	VMED28
2	VTAC11	13	VMED29
3	VTAC12	14	VLAW31
4	VTAC13	15	VLAW32
5	VTAC14	16	VTAC33
6	VFIRE21	17	VTAC34
7	VFIRE22	18	VTAC35
8	VFIRE23	19	VTAC36
9	VFIRE24	20	VTAC37
10	VFIRE25	21	VTAC38
11	VFIRE26	22	TXCALL1D
		23	TXCALL2D

These are the VHF **narrowband** interoperability frequencies that are used nationally and by Texas and will replace the wideband interoperable frequencies on January 1, 2013.

Multiple Talk-Groups/Zones

What if your mobile or portable radio had multiple talk-groups/zones, but the maximum number of channels for each one is limited to 16 channels?

- One group, until 12/31/2012, could hold all of the sixteen channels listed in the above example – keeping in mind that the fire channels might be swapped for other disciplines, depending on the application.
- Looking at the above table, another group/zone could hold the first 15 channels (VCALL10-VLAW32) along with VTAC36. This would provide easier access to all of the channels that might be used on an incident, without having to swap between groups.
- And still another group/zone might be assigned the channels of the bullet point above, but replace VFIRE25 with TXCALL1D. This would still provide multiple fire-specific channels and allow for a statewide mobile-to-mobile calling channel.

Tips

- While most of the VHF narrowband interoperable channels indicated they are “tactical,” they can be used as “command,” “staging,” or for other applications as necessary and as determined by the Incident Commander.
- Ensure that the person programming the radio follows precisely the frequency, tone and name of each channel as listed in the Texas Statewide Interoperability Channel Plan. During the 2011 wildfire season many instances came to light where something was different which resulted in no communication between resources.
- When interagency resources check in with your incident, determine their interoperable communications capabilities. From this, a communications plan can be developed and/or assignments made.
- When calling mutual aid resources to your incident, consider having them travel on an interoperable channel that both of you can access. That way you will know how to contact each other should they need to be guided to the ICP, reassigned, etc.
- Practice using interoperable channels on routine incidents/events, and include interagency and inter-discipline resources.

TSICP Table 1
VHF 150 MHz Narrowband Interoperability Channels (12.5 kHz)**
Emission Designators 11K2F3E, 11K3F3E, 11K2G2E

Mobile and Portable Configuration*					
Label	Receive	Transmit	Station Class	CTCSS RX /TX	Use
VCALL10	155.7525	155.7525	FBT / MO	CSQ / 156.7	Calling Channel
VTAC11	151.1375	151.1375	FBT / MO	CSQ / 156.7	Tactical Channel
VTAC12	154.4525	154.4525	FBT / MO	CSQ / 156.7	Tactical Channel
VTAC13	158.7375	158.7375	FBT / MO	CSQ / 156.7	Tactical Channel
VTAC14	159.4725	159.4725	FBT / MO	CSQ / 156.7	Tactical Channel
VFIRE21	154.2800	154.2800	FBT / MO	CSQ / 156.7	Tactical Channel
VFIRE22	154.2650	154.2650	FBT / MO	CSQ / 156.7	Tactical Channel
VFIRE23	154.2950	154.2950	FBT / MO	CSQ / 156.7	Tactical Channel
VFIRE24	154.2725	154.2725	FBT / MO	CSQ / 156.7	Tactical Channel
VFIRE25	154.2875	154.2875	FBT / MO	CSQ / 156.7	Tactical Channel
VFIRE26	154.3025	154.3025	FBT / MO	CSQ / 156.7	Tactical Channel (for Air-to-Ground with State/Federal Aircraft ONLY)
VMED28	155.3400	155.3400	FBT / MO	CSQ / 156.7	Tactical Channel (and for Air-to-Ground use)
VMED29	155.3475	155.3475	FBT / MO	CSQ / 156.7	Tactical Channel
VLAW31	155.4750	155.4750	FBT / MO	CSQ / 156.7	Tactical Channel
VLAW32	155.4825	155.4825	FBT / MO	CSQ / 156.7	Tactical Channel
TXCALL1D	154.950	154.950	FBT / MO	156.7 / 156.7	Mobile-to-Mobile Calling Channel
TXCALL2D	155.370	155.370	FBT / MO	156.7 / 156.7	(PRI: Calling Channel for State/Federal Aircraft to/from a Base and SEC: VCALL10 backup)

Mobile and Portable Configuration* (continued)					
Label	Receive	Transmit	Station Class	CTCSS RX /TX	Use
NOTE: The sub-audible tones of the following are different!					
VTAC33	159.4725	151.1375	FBT / MO	CSQ / 136.5	Tactical Repeater Secondary 1
VTAC34	158.7375	154.4525	FBT / MO	CSQ / 136.5	Tactical Repeater Secondary 2
VTAC35	159.4725	158.7375	FBT / MO	CSQ / 136.5	Tactical Repeater Secondary 3
VTAC36	151.1375	159.4725	FBT / MO	CSQ / 136.5	Tactical Repeater Preferred 1
VTAC37	154.4525	158.7375	FBT / MO	CSQ / 136.5	Tactical Repeater Preferred 2
VTAC38	158.7375	159.4725	FBT / MO	CSQ / 136.5	Tactical Repeater Preferred 3
Repeater Base Configuration					
VTAC33	151.1375	159.4725	FB2T	136.5 / CSQ	Tactical Repeater Secondary 1
VTAC34	154.4525	158.7375	FB2T	136.5 / CSQ	Tactical Repeater Secondary 2
VTAC35	158.7375	159.4725	FB2T	136.5 / CSQ	Tactical Repeater Secondary 3
VTAC36	159.4725	151.1375	FB2T	136.5 / CSQ	Tactical Repeater Preferred 1
VTAC37	158.7375	154.4525	FB2T	136.5 / CSQ	Tactical Repeater Preferred 2
VTAC38	159.4725	158.7375	FB2T	136.5 / CSQ	Tactical Repeater Preferred 3

* Sub-audible tones, matching the transmit tones of the above VHF channels, can be added to the receive side if interference is experienced during an incident.

** In an emergency, additional Department of Defense VHF Repeater Channels (below 150.8 MHz) can be made available through coordination with the Communications Coordination Group (CCG). Please contact the CCG through your local Disaster District Committee. Alternate contact information is: ccg@dps.texas.gov and 512-424-2755.

TSICP Table 2
UHF 450 MHz Narrowband Interoperability Channels (12.5 kHz)
Emission Designators 11K2F3E, 11K3F3E, 11K2G2E

Mobile and Portable Configuration					
Label	Receive	Transmit	Station Class	CTCSS RX/TX	Use
UCALL40	453.2125	458.2125	FX1T / MO	CSQ / 156.7	Calling Channel (Repeater)
UCALL40D	453.2125	453.2125	FX1T / MO	CSQ / 156.7	Calling Channel (Direct)
UTAC41	453.4625	458.4625	FX1T / MO	CSQ / 156.7	Tactical Repeater Channel
UTAC41D	453.4625	453.4625	FX1T / MO	CSQ / 156.7	Tactical Repeater (Direct)
UTAC42	453.7125	458.7125	FX1T / MO	CSQ / 156.7	Tactical Repeater Channel
UTAC42D	453.7125	453.7125	FX1T / MO	CSQ / 156.7	Tactical Repeater (Direct)
UTAC43	453.8625	458.8625	FX1T / MO	CSQ / 156.7	Tactical Repeater Channel
UTAC43D	453.8625	453.8625	FX1T / MO	CSQ / 156.7	Tactical Repeater (Direct)
Repeater Base Configuration					
UCALL40	458.2125	453.2125	FB2T	156.7 / CSQ	Mobile Command Post Calling Channel Base
UTAC41	458.4625	453.4625	FB2T	156.7 / CSQ	Incident Temporary Repeater Channels
UTAC42	458.7125	453.7125	FB2T	156.7 / CSQ	Incident Temporary Repeater Channels
UTAC43	458.8625	453.8625	FB2T	156.7 / CSQ	Incident Temporary Repeater Channels

For additional information, please refer to the revised TSICP at <http://dps.texas.gov/LawEnforcementSupport/communications/interop/index.htm>.