

# National Public Safety Telecommunications Council's

## Channel Naming Report



**NPSTC**

NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL



## National Public Safety Telecommunications Council

### NCC / NPSTC Standard Channel Nomenclature for the Public Safety Interoperability Channels

Revised June 2007



#### Member Organizations

American Association of  
State Highway and Transportation Officials  
American Radio Relay League  
American Red Cross  
Association of Fish and Wildlife Agencies  
Association of Public Safety  
Communications Officials-International  
Forestry Conservation  
Communications Association  
International Association of Chiefs of Police  
International Association of  
Emergency Managers  
International Association of Fire Chiefs  
International Municipal Signal Association  
National Association of State Chief  
Information Officers  
National Association of  
State Emergency Medical Services  
National Association of State Foresters  
National Association of  
State Telecommunications Directors

#### Liaison Organizations

Federal Communications Commission  
National Telecommunications and  
Information Administration  
Telecommunications Industry Association  
US Department of Agriculture  
US Department of Justice  
NIJ CommTech Program  
US Department of Homeland Security  
FEMA  
SAFECOM Program  
US Department of Interior

This document outlines the *NCC / NPSTC Standard Channel Nomenclature for Public Safety Interoperability Channels* as revised in June of 2007. The requirement for a common naming protocol for public safety's interoperability frequencies was identified in early 2000 by the Public Safety National Coordination Committee (NCC), a Federal Advisory Committee chartered by the Federal Communications Commission (FCC) that operated from 1999 to 2003, and provided recommendations to the Commission on operational and technical parameters for use of the 700 MHz public safety band.

In the final report of the NCC on July 25, 2003, Chair Kathleen Wallmann wrote:

#### Standard Channel Nomenclature

The NCC respectfully renews its earlier recommendation that the Commission's Rules contain mandatory channel nomenclature for all interoperability channels on all public safety bands. The NCC views such standard nomenclature as essential to the interoperability process, such that all responders to an incident will know the appropriate channel to which to tune their radios and will know – from the channel designator – the band and primary use of the channel specified. Absent such standard nomenclature, a Babel-like confusion could result if, for example, a given jurisdiction were to designate 458.2125 MHz as a calling channel and associate it with "Channel 5" on its radios; and another jurisdiction were to designate the same frequency as a tactical channel and assign it to "Channel 9" on its radios. With adoption of a standard channel nomenclature in the Rules, such confusion – and the attendant potential for delayed response to an incident – would be avoided...

While the FCC declined at that time to mandate such a standard channel nomenclature, the NCC protocol has received wide acceptance within the public safety communications community, as communications interoperability for public safety's first responders continues to be a major issue.

During 2006 NPSTC was approached by a number of public safety user organizations with a request that NPSTC review and update the *Standard Channel Nomenclature* to reflect 'real world' user operational requirements. A Task Group was convened and a public forum to address the issue was held on February 5, 2007 in Orlando FL. Six proponent organizations submitted recommendations for modification of the *Standard Channel Nomenclature*. These were heard and discussed at the forum, and a consensus format was adopted. The proposed revision (as a *Report of Committee*) was placed on public notice, and after a 90 day comment period, adopted as this revised protocol.

## NTIA Interoperability Channels

During the Forum the issue of names for the 40 NTIA VHF and UHF Interoperability Channels was discussed. The NTIA has designated these channels with a set of names in a format that does not prevent duplication of identifiers or promote uniqueness.<sup>1</sup> At least one federal agency has developed guidance for these channels with a different set of channel names. The representatives of the various federal agencies present requested that the Task Group take the issue of the NTIA channels off line, and work with them to find a solution that works for all parties. This effort is ongoing, and once completed NPSTC will update this protocol.

## 700 MHz Spectrum

During NPSTC's Comment Period for the Report of Committee, the FCC released Docket 07-72, a *Report and Order and Further Notice of Proposed Rulemaking* addressing seven different ongoing dockets relating to the Lower and Upper 700 MHz Bands (including the public safety segments in TV Channels 63, 64, 68, and 69). Among the numerous issues in this docket, the Commission announced intent to realign the Public Safety allocations to combine the two separate segments of paired narrowband channels<sup>2</sup> into the Channel 64/69 pair, and combine the non-narrowband voice use into Channel 63/68, and reallocate the use to Broadband Data which could reduce or eliminate the designators for Wideband Data interoperability channels. The original FCC allocations for the narrowband Interoperability spectrum included duplicate sets of channels (e.g.: Call, Data I/O, Secondary Trunking, etc.), that are reflected in the current protocol. NPSTC has elected to refrain from making any adjustments to the protocol until such time as these issues are resolved by the FCC.

## Standardized Naming Format

*Tables 1 and 2 show the FCC designated Interoperability Channels and the related Channel Name.*

Each FCC designated Interoperability Channel in the Public Safety Radio Services (47CFR Part 90) will have a unique name developed according to a standardized format. This format consists of a maximum of 8 characters,<sup>3</sup> as follows:

**Btype##M**

This format is broken down as follows:

---

<sup>1</sup> See FCC DA-01-1621A or the NTIA "Red Book" 2003 edition at Chapter 4.3.16 for the existing names and limitations.

<sup>2</sup> Currently each 6 MHz TV channel is allocated as 3 MHz of narrowband voice, and 3 MHz of reserve or wideband data use. Channel 63 is paired with Channel 68, and Channel 64 is paired with Channel 69.

<sup>3</sup> An 8-character limit was adopted by the NCC after discussions with major equipment manufacturers determined this was the minimum display being delivered in 2003 for radios ordered with a display option. This 8-character size was again confirmed with several manufacturers in early 2007.

## **B            Spectrum Band**

The Spectrum Band designator is a unique single alpha or numeric character to designate the Public Safety spectrum segment the channel is found within:

- L**    VHF Low band (30 – 50 MHz)
- V**    VHF High Band (150.8 – 162.0 MHz)
- U**    UHF Band (450 – 470 MHz)
- 7**    700 MHz Public Safety Band. As the spectrum for voice communications use in this band is currently further divided into two individual blocks, for interoperability channel numbering purposes these blocks are identified as follows:
  - “A” Block: Television Channels 63 and 68
  - “B” Block: Television Channels 64 and 69
- 8**    800 MHz NPSPAC band **after the rebanding process** (806 – 809 / 851 – 854 MHz)

## **Type            Channel Use designator**

The Channel Use designator is an alphanumeric 3 or 4 place tag to signify the primary purpose of operations on the channel. In some cases, the Channel Use has been specified in FCC rules or related Orders.

- CALL**    Channel is dedicated nationwide for the express purpose of Interoperability calling only.
- DATA**    Channel is reserved nationwide for the express purpose of data transmission only.
- FIRE**     Primarily used for interagency incident communications by Fire licensees
- GTAC**    Primarily used for interagency incident communications between Public Safety eligible entities and eligible non-governmental organizations
- LAW**     Primarily used for interagency incident communications by Police licensees
- MED**     Primarily used for interagency incident communications by Emergency Medical Service licensees
- MOB**     Primarily used for on-scene interagency incident communications by any Public Safety eligible, using vehicular repeaters (FCC Station Class MO3)
- TAC**     Primarily used for interagency communications by any Public Safety eligible

## **##            Unique Channel Identifier**

The Unique Channel Identifier is a numeric 1 or 2 place tag to uniquely identify the specific channel. Channel Identifiers are grouped by band segment as follows:

- 1-9        VHF Low band (30-50 MHz) [No leading Zero used]
- 10-39     VHF High band (150.8 – 162 MHz)
- 40-49     UHF band (450 – 470 MHz)
- 50-69     700 MHz “A” block (TV 63/68)
- 70-89     700 MHz “B” block (TV 64/69)
- 90-99     800 MHz “NPSPAC” band (806-809/851-854 MHz) [Post-rebanding]

Notes:

- Starting in VHF High band, Channel Identifiers are grouped by Channel Use type, with Channel Identifiers ending in “0” reserved for Interoperability Calling use.
- Channels Identifiers specified for Emergency Medical Services (“MED”) in this document are numbered to avoid conflict with the FCC’s UHF medical channel naming methodology specified in 47CFR90.20(d)(65) and 47CFR90.20(d)(66)(i).
- Channel Identifiers not specified in Tables 1 and 2 are reserved for future use.

## **M      Modifier**

The Modifier character is a single alphanumeric tag to identify a modification to the default operation type on the channel / channel pair:

- D          Direct or “Talk around” use [Simplex operations on the output channel of a pair normally designated for half-duplex or mobile relay operations.

## **Standardized Tone Squelch or Network Access Codes**

The use of a common Continuous Tone Controlled Squelch System (CTCSS) tone of 156.7 Hz for transmit and receive on national Interoperability Channels was originally specified in the NPSPAC proceedings (Docket 87-112). In many areas, the 800 MHz Planning Regions allowed the use of an additional (secondary) access tone for in-cabinet repeat operations, as long as the 156.7 Hz tone was monitored by a live dispatcher or always repeated upon receipt. 156.7 Hz is always transmitted by repeaters.

In the development process of the *Standard Channel Nomenclature for the Public Safety Interoperability Channels*, the NCC Interoperability Committee’s Working Group recommended that 156.7 Hz CTCSS transmit and receive be used for all analog voice operations on all interoperability channels in all bands. For P-25 voice operations, the NCC Working Group initially recommended the 156.7 Hz equivalent Network Access Code (NAC) of \$61F. This recommendation was changed in 2001 to use the default (“carrier squelch equivalent”) NAC of \$293.

### **ANALOG OPERATIONS:**

The use of **CTCSS Tone 156.7 Hz** has been adopted for all analog operations on Interoperability Channels:

1. All (fixed and subscriber) analog transmitters **will** encode 156.7 Hz.
2. Subscriber receivers should be set for carrier squelch operations unless conditions in the area require the use of tone protection to mitigate adjacent channel interference, or interference from intermodulation products. In those cases, receivers will decode 156.7 Hz.
3. Subject to the approval of applicable Statewide Communications Interoperability Plans and/or FCC-approved Regional Plans, Mobile Relay stations that are part of a Local, Regional, or Statewide interoperability network may be equipped with a second receive CTCSS tone to provide local (“in cabinet”) relay operation, provided:
  - a. The relay transmitter continues to transmit the Common CTCSS Tone of 156.7 Hz so that all users within range of the station are aware the station is in use;
  - b. The relay will accept the Common CTCSS Tone of 156.7 Hz and present the audio accompanying the 156.7 Hz-encoded transmission for automatic in-cabinet repeat or to a live operator at the appropriate controlling dispatch facility; and

- c. The operational configuration of the Mobile Relay Station is published in applicable interoperability resource tracking documents (such as the appropriate Tactical Interoperability Communications Plan, Statewide Communications Interoperability Plan, and/or FCC-approved Regional Plan) and databases (CAPRAD, CASM, and NIIX<sup>4</sup>).

## **DIGITAL OPERATIONS**

The use of Network Access Code (NAC) \$293 has been adopted for all digital operations on Interoperability Channels:

1. Subject to the approval of applicable Statewide Communications Interoperability Plans and/or FCC-approved Regional Plans, Mobile Relay stations that are part of a Local, Regional, or Statewide interoperability network may be equipped with a second receive NAC to provide local (“in cabinet”) relay operation, provided:
  - a. The relay transmitter continues to transmit the Common NAC of \$293 so that all users within range of the station are aware the station is in use;
  - b. The relay will accept the Common NAC of \$293 and present the audio accompanying the \$293-encoded transmission for automatic in-cabinet repeat or to a live operator at the appropriate controlling dispatch facility; and
  - c. The operational configuration of the Mobile Relay Station is published in applicable interoperability resource tracking documents (such as the appropriate Tactical Interoperability Communications Plan, Statewide Communications Interoperability Plan, and/or FCC-approved Regional Plan) and databases (CAPRAD, CASM, and NIIX).

## **Subscriber Radio Programming**

### **INTEROPERABILITY CHANNEL CONFIGURATIONS**

It is strongly recommended that interoperability channels listed with both a mobile relay and a direct configuration have both configurations of each channel programmed in each subscriber radio, regardless of the available infrastructure in the user’s home area.

### **IMPLEMENTING THIS PROTOCOL**

It is recognized that the implementation of this protocol must be done in an organized and coordinated manner. This is best accomplished in conjunction with a system programming refresh, such as during the 800 MHz rebanding process, or when other operational requirements such as a frequency change or a conversion to narrowbanded channel requires the subscriber fleet of radios to be adjusted.

---

<sup>4</sup> The Computer Assisted Pre-Coordination Resource and Database System (CAPRAD) is a regional planning tool designed to assist 700 MHz Regional Planning Committees with development of their plans. The Communications Asset Survey and Mapping Tool (CASM) was developed by the Interoperable Communications Technical Assistance Program within the U.S. Department of Homeland Security to assist urban areas, designated metropolitan areas and states with inventory and mapping/use of interoperability resources. The National Interoperability Information eXchange (NIIX) is a library of statewide and tactical interoperability planning documents under development by NPSTC.

**Table 1: Sorted by band in Numeric Order**

FREQ / FCC CHANNEL (SUBSCRIBER LOAD)		BASE, MOBILE, OR FIXED (REPEATER OR CONTROL)	ELIGIBILITY / PRIMARY USE	COMMON NAME	LIMITATIONS (47 CFR Part 90)
RECEIVE	TRANSMIT				
MHz	MHz	FCC 30 MHz Public Safety Band			
39.4600	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	LLAW1	90.20(c)(3) [15]
39.4800	SIMPLEX	Base-Fixed-Mobile	Fire <i>Proposed</i>	LFIRE2	Prop. 90.20(c)(3) [19]
45.8600	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	LLAW3	90.20(c)(3) [15]
45.8800	SIMPLEX	Base-Fixed-Mobile	Fire	LFIRE4	90.20(c)(3) [19]
MHz	MHz	FCC 150 - 162 MHz Public Safety Band			
155.7525	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VCALL10	90.20(c)(3) [80,83]
151.1375	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC11	90.20(c)(3) [80]
154.4525	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC12	90.20(c)(3) [80]
158.7375	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC13	90.20(c)(3) [80]
159.4725	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC14	90.20(c)(3) [80]
161.8500	157.2500	Mobile-Fixed	Allocated for Public Safety Use in 33 Inland VPCAs/EAs	VTAC17	90.20(g)
	SIMPLEX	Base-Fixed-Mobile		VTAC17D	
161.8250	157.2250	Mobile-Fixed	Allocated for Public Safety Use in 33 Inland VPCAs/EAs	VTAC18	90.20(g)
	SIMPLEX	Base-Fixed-Mobile		VTAC18D	
161.8750	157.2750	Mobile-Fixed	Allocated for Public Safety Use in 33 Inland VPCAs/EAs	VTAC19	90.20(g)
	SIMPLEX	Base-Fixed-Mobile		VTAC19D	
154.2800	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE21	90.20(c)(3) [19]
154.2650	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE22	90.20(c)(3) [19]
154.2950	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE23	90.20(c)(3) [19]
154.2725	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE24	90.20(c)(3) [19]
154.2875	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE25	90.20(c)(3) [19]
154.3025	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE26	90.20(c)(3) [19]
155.3400	SIMPLEX	Base-Fixed-Mobile	EMS	VMED28	90.20(c)(3) [40]
155.3475	SIMPLEX	Base-Fixed-Mobile	EMS	VMED29	90.20(c)(3) [40]
155.4750	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	VLAWS1	90.20(c)(3) [41]
155.4825	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	VLAWS2	90.20(c)(3) [41]
MHz	MHz	NTIA VHF Law Enforcement Channels			
MHz	MHz	NTIA VHF Incident Response Channels			
<p><i>Use of the NTIA Interoperability Channels by FCC licensees is subject to the conditions specified in FCC Public Notice DA 01-1621. There are discrepancies between DA 01-1621 and the current NTIA "Red Book." NPSTC is working with our Federal partners to clarify the discrepancies and develop a revised name plan for the NTIA channels.</i></p>					
MHz	MHz	NTIA UHF Law Enforcement Channels			
MHz	MHz	NTIA UHF Incident Response Channels			
<p><i>Use of the NTIA Interoperability Channels by FCC licensees is subject to the conditions specified in FCC Public Notice DA 01-1621. There are discrepancies between DA 01-1621 and the current NTIA "Red Book." NPSTC is working with our Federal partners to clarify the discrepancies and develop a revised name plan for the NTIA channels.</i></p>					
MHz	MHz	FCC 450 - 470 MHz Public Safety Band			
453.2125	458.2125	Mobile-Fixed	Any Public Safety Eligible	UCALL40	90.20(c)(3) [80,83]
	SIMPLEX	Base-Fixed-Mobile		UCALL40D	
453.4625	458.4625	Mobile-Fixed	Any Public Safety Eligible	UTAC41	90.20(c)(3) [80]
	SIMPLEX	Base-Fixed-Mobile		UTAC41D	
453.7125	458.7125	Mobile-Fixed	Any Public Safety Eligible	UTAC42	90.20(c)(3) [80]
	SIMPLEX	Base-Fixed-Mobile		UTAC42D	
453.8625	458.8625	Mobile-Fixed	Any Public Safety Eligible	UTAC43	90.20(c)(3) [80]
	SIMPLEX	Base-Fixed-Mobile		UTAC43D	
CHANNEL	CHANNEL	FCC 700 MHz Public Safety Band (TV 63 + 68)			
39-40	999-1000	Mobile-Fixed	Calling Channel	7CALL50	90.531(a)(1)(ii)
	SIMPLEX	Base-Fixed-Mobile		7CALL50D	
23-24	983-984	Mobile-Fixed	General Public Safety Service (secondary trunked)	7TAC51	90.531(a)(1)(iii)
	SIMPLEX	Base-Fixed-Mobile		7TAC51D	
103-104	1063-1064	Mobile-Fixed	General Public Safety Service (secondary trunked)	7TAC52	90.531(a)(1)(iii)
	SIMPLEX	Base-Fixed-Mobile		7TAC52D	
183-184	1143-1144	Mobile-Fixed	General Public Safety Service (secondary trunked)	7TAC53	90.531(a)(1)(iii)
	SIMPLEX	Base-Fixed-Mobile		7TAC53D	
263-264	1223-1224	Mobile-Fixed	General Public Safety Service (secondary trunked)	7TAC54	90.531(a)(1)(iii)
	SIMPLEX	Base-Fixed-Mobile		7TAC54D	
119-120	1079-1080	Mobile-Fixed	General Public Safety Service	7TAC55	
	SIMPLEX	Base-Fixed-Mobile		7TAC55D	
199-200	1159-1160	Mobile-Fixed	General Public Safety Service	7TAC56	
	SIMPLEX	Base-Fixed-Mobile		7TAC56D	

**Table 1: Sorted by band in Numeric Order**

FREQ / FCC CHANNEL (SUBSCRIBER LOAD)		BASE,MOBILE, OR FIXED (REPEATER OR CONTROL)	ELIGIBILITY / PRIMARY USE	COMMON NAME	LIMITATIONS (47 CFR Part 90)
RECEIVE	TRANSMIT				
<b>CHANNEL</b>	<b>CHANNEL</b>	<b>FCC 700 MHz Public Safety Band (TV 63 + 68) (Continued)</b>			
319-320	1279-1280 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Other Public Service	7GTAC57 7GTAC57D	
303-304	1263-1264 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Repeater <i>(M03 Use Primary)</i>	7MOB59 7MOB59D	
223-224	1183-1184 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW61 7LAW61D	
239-240	1199-1200 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW62 7LAW62D	
143-144	1103-1104 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE63 7FIRE63D	
159-160	1119-1120 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE64 7FIRE64D	
63-64	1023-1024 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	EMS	7MED65 7MED65D	
79-80	1039-1040 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	EMS	7MED66 7MED66D	
279-280	1239-1240 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Data	7DATA69 7DATA69D	90.531(a)(1)(i)
<b>CHANNEL</b>	<b>CHANNEL</b>	<b>FCC 700 MHz Public Safety Band (TV 64 + 69)</b>			
681-682	1641-1642 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Calling Channel	7CALL70 7CALL70D	90.531(a)(1)(ii)
657-658	1617-1618 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service <i>(secondary trunked)</i>	7TAC71 7TAC71D	90.531(a)(1)(iii)
737-738	1697-1698 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service <i>(secondary trunked)</i>	7TAC72 7TAC72D	90.531(a)(1)(iii)
817-818	1777-1778 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service <i>(secondary trunked)</i>	7TAC73 7TAC73D	90.531(a)(1)(iii)
897-898	1857-1858 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service <i>(secondary trunked)</i>	7TAC74 7TAC74D	90.531(a)(1)(iii)
761-762	1721-1722 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service	7TAC75 7TAC75D	
841-842	1801-1802 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service	7TAC76 7TAC76D	
937-938	1897-1898 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Other Public Service	7GTAC77 7GTAC77D	
881-882	1841-1842 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Repeater <i>(M03 Use Primary)</i>	7MOB79 7MOB79D	
801-802	1761-1762 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW81 7LAW81D	
857-858	1817-1818 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW82 7LAW82D	
721-722	1681-1682 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE83 7FIRE83D	
777-778	1737-1738 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE84 7FIRE84D	
641-642	1601-1602 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	EMS	7MED86 7MED86D	
697-698	1657-1658 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	EMS	7MED87 7MED87D	
921-922	1881-1882 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Data	7DATA89 7DATA89D	90.531(a)(1)(i)
<b>MHz</b>	<b>MHz</b>	<b>FCC 800 MHz NPSPAC Band (Post-Rebanding)</b>			
851.0125	806.0125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8CALL90 8CALL90D	90.16
851.5125	806.5125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC91 8TAC91D	90.16
852.0125	807.0125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC92 8TAC92D	90.16
852.5125	807.5125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC93 8TAC93D	90.16
853.0125	808.0125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC94 8TAC94D	90.16



**Table 2: Sorted by band in Frequency or Channel Order**

FREQ / FCC CHANNEL (SUBSCRIBER LOAD)		BASE,MOBILE, OR FIXED (REPEATER OR CONTROL)	ELIGIBILITY / PRIMARY USE	COMMON NAME	LIMITATIONS (47 CFR Part 90)
RECEIVE	TRANSMIT				
MHz	MHz	FCC 30 MHz Public Safety Band			
39.4600	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	LLAW1	90.20(c)(3) [15]
39.4800	SIMPLEX	Base-Fixed-Mobile	Fire <i>Proposed</i>	LFIRE2	Prop. 90.20(c)(3) [19]
45.8600	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	LLAW3	90.20(c)(3) [15]
45.8800	SIMPLEX	Base-Fixed-Mobile	Fire	LFIRE4	90.20(c)(3) [19]
MHz	MHz	FCC 150 - 162 MHz Public Safety Band			
151.1375	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC11	90.20(c)(3) [80]
154.2650	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE22	90.20(c)(3) [19]
154.2725	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE24	90.20(c)(3) [19]
154.2800	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE21	90.20(c)(3) [19]
154.2875	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE25	90.20(c)(3) [19]
154.2950	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE23	90.20(c)(3) [19]
154.3025	SIMPLEX	Base-Fixed-Mobile	Fire	VFIRE26	90.20(c)(3) [19]
154.4525	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC12	90.20(c)(3) [80]
155.3400	SIMPLEX	Base-Fixed-Mobile	EMS	VMED28	90.20(c)(3) [40]
155.3475	SIMPLEX	Base-Fixed-Mobile	EMS	VMED29	90.20(c)(3) [40]
155.4750	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	VLAW31	90.20(c)(3) [41]
155.4825	SIMPLEX	Base-Fixed-Mobile	Law Enforcement	VLAW32	90.20(c)(3) [41]
155.7525	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VCALL10	90.20(c)(3) [80,83]
158.7375	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC13	90.20(c)(3) [80]
159.4725	SIMPLEX	Base-Fixed-Mobile	Any Public Safety Eligible	VTAC14	90.20(c)(3) [80]
161.8500	157.2500	Mobile-Fixed	Allocated for Public Safety Use in 33 Inland VPCAs/EAs	VTAC17	90.20(g)
	SIMPLEX	Base-Fixed-Mobile		VTAC17D	
161.8250	157.2250	Mobile-Fixed	Allocated for Public Safety Use in 33 Inland VPCAs/EAs	VTAC18	90.20(g)
	SIMPLEX	Base-Fixed-Mobile		VTAC18D	
161.8750	157.2750	Mobile-Fixed	Allocated for Public Safety Use in 33 Inland VPCAs/EAs	VTAC19	90.20(g)
	SIMPLEX	Base-Fixed-Mobile		VTAC19D	
MHz	MHz	NTIA VHF Law Enforcement Channels			
MHz	MHz	NTIA VHF Incident Response Channels			
<p><i>Use of the NTIA Interoperability Channels by FCC licensees is subject to the conditions specified in FCC Public Notice DA 01-1621. There are discrepancies between DA 01-1621 and the current NTIA "Red Book." NPSTC is working with our Federal partners to clarify the discrepancies and develop a revised name plan for the NTIA channels.</i></p>					
MHz	MHz	NTIA UHF Law Enforcement Channels			
MHz	MHz	NTIA UHF Incident Response Channels			
<p><i>Use of the NTIA Interoperability Channels by FCC licensees is subject to the conditions specified in FCC Public Notice DA 01-1621. There are discrepancies between DA 01-1621 and the current NTIA "Red Book." NPSTC is working with our Federal partners to clarify the discrepancies and develop a revised name plan for the NTIA channels.</i></p>					
MHz	MHz	FCC 450 - 470 MHz Public Safety Band			
453.2125	458.2125	Mobile-Fixed	Any Public Safety Eligible	UCALL40	90.20(c)(3) [80,83]
	SIMPLEX	Base-Fixed-Mobile		UCALL40D	
453.4625	458.4625	Mobile-Fixed	Any Public Safety Eligible	UTAC41	90.20(c)(3) [80]
	SIMPLEX	Base-Fixed-Mobile		UTAC41D	
453.7125	458.7125	Mobile-Fixed	Any Public Safety Eligible	UTAC42	90.20(c)(3) [80]
	SIMPLEX	Base-Fixed-Mobile		UTAC42D	
453.8625	458.8625	Mobile-Fixed	Any Public Safety Eligible	UTAC43	90.20(c)(3) [80]
	SIMPLEX	Base-Fixed-Mobile		UTAC43D	
CHANNEL	CHANNEL	FCC 700 MHz Public Safety Band (TV 63 + 68)			
23-24	983-984	Mobile-Fixed	General Public Safety Service (secondary trunked)	7TAC51	90.531(a)(1)(iii)
	SIMPLEX	Base-Fixed-Mobile		7TAC51D	
39-40	999-1000	Mobile-Fixed	Calling Channel	7CALL50	90.531(a)(1)(ii)
	SIMPLEX	Base-Fixed-Mobile		7CALL50D	
63-64	1023-1024	Mobile-Fixed	EMS	7MED65	
	SIMPLEX	Base-Fixed-Mobile		7MED65D	
79-80	1039-1040	Mobile-Fixed	EMS	7MED66	
	SIMPLEX	Base-Fixed-Mobile		7MED66D	
103-104	1063-1064	Mobile-Fixed	General Public Safety Service (secondary trunked)	7TAC52	90.531(a)(1)(iii)
	SIMPLEX	Base-Fixed-Mobile		7TAC52D	
119-120	1079-1080	Mobile-Fixed	General Public Safety Service	7TAC55	
	SIMPLEX	Base-Fixed-Mobile		7TAC55D	
143-144	1103-1104	Mobile-Fixed	Fire	7FIRE63	
	SIMPLEX	Base-Fixed-Mobile		7FIRE63D	

**Table 2: Sorted by band in Frequency or Channel Order**

FREQ / FCC CHANNEL (SUBSCRIBER LOAD)		BASE,MOBILE, OR FIXED (REPEATER OR CONTROL)	ELIGIBILITY / PRIMARY USE	COMMON NAME	LIMITATIONS (47 CFR Part 90)
RECEIVE	TRANSMIT				
<b>CHANNEL</b>	<b>CHANNEL</b>	<b>FCC 700 MHz Public Safety Band (TV 63 + 68) (Continued)</b>			
159-160	1119-1120 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE64 7FIRE64D	
183-184	1143-1144 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC53 7TAC53D	90.531(a)(1)(iii)
199-200	1159-1160 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service	7TAC56 7TAC56D	
223-224	1183-1184 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW61 7LAW61D	
239-240	1199-1200 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW62 7LAW62D	
263-264	1223-1224 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC54 7TAC54D	90.531(a)(1)(iii)
279-280	1239-1240 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Data	7DATA69 7DATA69D	90.531(a)(1)(i)
303-304	1263-1264 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Repeater	7MOB59 7MOB59D	
319-320	1279-1280 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Other Public Service	7GTAC57 7GTAC57D	
<b>CHANNEL</b>	<b>CHANNEL</b>	<b>FCC 700 MHz Public Safety Band (TV 64 + 69)</b>			
641-642	1601-1602 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	EMS	7MED86 7MED86D	
657-658	1617-1618 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC71 7TAC71D	90.531(a)(1)(iii)
681-682	1641-1642 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Calling Channel	7CALL70 7CALL70D	90.531(a)(1)(ii)
697-698	1657-1658 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	EMS	7MED87 7MED87D	
721-722	1681-1682 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE83 7FIRE83D	
737-738	1697-1698 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC72 7TAC72D	90.531(a)(1)(iii)
761-762	1721-1722 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service	7TAC75 7TAC75D	
777-778	1737-1738 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Fire	7FIRE84 7FIRE84D	
801-802	1761-1762 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW81 7LAW81D	
817-818	1777-1778 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC73 7TAC73D	90.531(a)(1)(iii)
841-842	1801-1802 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service	7TAC76 7TAC76D	
857-858	1817-1818 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Law Enforcement	7LAW82 7LAW82D	
881-882	1841-1842 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Repeater	7MOB79 7MOB79D	
897-898	1857-1858 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC74 7TAC74D	90.531(a)(1)(iii)
921-922	1881-1882 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Mobile Data	7DATA89 7DATA89D	90.531(a)(1)(i)
937-938	1897-1898 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Other Public Service	7GTAC77 7GTAC77D	
<b>MHz</b>	<b>MHz</b>	<b>FCC 800 MHz NPSPAC Band (Post-Rebanding)</b>			
851.0125	806.0125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8CALL90 8CALL90D	90.16
851.5125	806.5125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC91 8TAC91D	90.16
852.0125	807.0125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC92 8TAC92D	90.16
852.5125	807.5125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC93 8TAC93D	90.16
853.0125	808.0125 SIMPLEX	Mobile-Fixed Base-Fixed-Mobile	Any Public Safety Eligible	8TAC94 8TAC94D	90.16

## Limitations

Tables 1 and 2 refer to various Limitations. These limitations refer to sections of 47 CFR Part 90, the FCC's Rules and Regulations for Public Safety use of the radio spectrum. These limitations are:

- 90.16** 90.16 Public Safety National Plan.  
The Commission has established a National Plan which specifies special policies and procedures governing the Public Safety Pool (formally Public Safety Radio Services and the Special Emergency Radio Service). The National Plan is contained in the Report and Order in General Docket No. 87-112. The principal spectrum resource for the National Plan is the 806-809 MHz and the 851-854 MHz bands at locations farther than 110 km (68.4 miles) from the U.S./Mexico border and 140 km (87 miles) from the U.S./Canadian border ("border regions"). In the border regions, the principal spectrum for the National Plan may be different. The National plan establishes planning regions covering all parts of the United States, Puerto Rico, and the U.S. Virgin Islands. No assignments will be made in the spectrum designated for the National Plan until a regional plan for the area has been accepted by the Commission.
- 90.20(c)(3) [15]** (15) This frequency is reserved for assignment to stations for intersystem operations only: Provided, however, that licensees holding a valid authorization to use this frequency for local base or mobile operations as of June 1, 1956, may continue to be authorized for such use.
- 90.20(c)(3) [16]** (16) This frequency is reserved primarily for assignment to state police licensees. Assignments to other police licensees will be made only where the frequency is required for coordinated operation with the state police system to which the frequency is assigned. Any request for such assignment must be supported by a statement from the state police system concerned indicating that the assignment is necessary for coordination of police activities.
- 90.20(c)(3) [19]** (19) This frequency is reserved for assignment to stations in this service for intersystem operations only and these operations must be primarily base-mobile communications.
- 90.20(c)(3) [40]** (40) This frequency may be designated by common consent as an intersystem mutual assistance frequency under an area-wide medical communications plan.
- 90.20(c)(3) [41]** (41) This frequency is available nationwide for use in police emergency communications networks operated under statewide law enforcement emergency communications plans.
- 90.20(c)(3) [80]** (80) After December 7, 2000 this frequency is available primarily for public safety interoperability only communications. Stations licensed prior to December 7, 2000 may continue to use this frequency on a co-primary basis until January 1, 2005. After January 1, 2005, all operations will be secondary to co-channel interoperability communications.
- 90.20(c)(3) [83]** (83) This interoperability frequency is dedicated for the express purpose of nationwide interoperability calling.
- 90.20(g)** (g) Former public correspondence working channels in the maritime VHF (156–162 MHz) band allocated for public safety use in 33 inland Economic Areas. ... (3) The channels pairs set forth in Table B paragraph (g)(2)(ii) of this section are designated primarily for the purpose of interoperability communication.
- 90.531(a)(1)(i)** (i) *Narrowband data Interoperability channels.* The following channel pairs are reserved nationwide for the express purpose of data transmission only ...
- 90.531(a)(1)(ii)** (ii) *Narrowband calling Interoperability channels.* The following channel pairs are dedicated nationwide for the express purpose of *Interoperability* calling only ... They may not be used primarily for routine, day-to-day communications. Encryption is prohibited on the designated calling channels.
- 90.531(a)(1)(iii)** (iii) *Narrowband trunking Interoperability channels.* The following Interoperability channel pairs may be combined with the appropriate adjacent secondary trunking channel pairs and used in trunked mode on a secondary basis to conventional Interoperability operations