

METRO REGION
800 MHz Trunked Regional Public Safety Radio System
Standards, Protocols, Procedures

Document Section:	3 - Interoperability Guidelines	RadioTOC Recommendation
Sub-Section:	METRO 3.8.0	Date: 3/26/08
Procedure Title:	LE & IR Nationwide Channels for Interoperability with U.S. Government Agencies	
Date Established:	3/5/08	MESB Approval - Signature:
Replaces Document Dated:		Date: 4/16/08
Date Revised:		

1. Purpose or Objective:

To provide guidance on use of the LE and IR nationwide US Government interoperability channels for the Minneapolis/St. Paul metropolitan area to provide communications for interagency command level coordination and tactical operations coordination between local, state, and federal agencies in conjunction with Law Enforcement and/or Incident Response plans.

2. Technical Background:

• **Capabilities**

The federal government has allocated 20 law enforcement (LE) frequency sets and 20 incident response (IR) frequency sets for interoperability among federal agencies and between federal and state/local agencies. Several of these frequencies have been cleared for use in the metro region. The cleared frequencies include VHF and UHF repeater pairs and simplex frequencies.

• **Constraints**

These channels may only be used for federal to local and federal to federal agency interoperable communications. They cannot be used for local to local agency communications. State/local agency users of these frequencies must possess an FCC license authorizing their use. A copy of the FCC Public Notice relating to licensing is attached to this Standard as reference.

3. Operational Context:

The US Department of Justice – Wireless Management Office has provided directions for use of the LE and IR frequencies in their “High Risk Metropolitan Area Interoperability Assistance Program Law Enforcement & Incident Response Plan Frequencies October 1, 2007” document which is attached to this Standard to be a permanent part thereof. This document includes conditions for use, a national frequency table indicating channel assignments and a table specifying the frequencies cleared for use in the metro region.

The US Department of Justice – Wireless Management Office and the Minneapolis office of the FBI have recommended inclusion of channels LE2, LE12, IR2 and IR12 in all VHF federal radios for use in the

metro region. Hennepin County will be equipping two portable repeaters with these frequencies for emergency deployment to an incident as part of the Strategic Technology Reserve.

[Note: The US Department of Justice – Wireless Management Office is currently researching to determine if these frequencies are available for use throughout Minnesota.]

4. Recommended Protocol:

The DOJ Wireless Management Office document referenced in Section 3 specifies the protocol for use of the LE and IR frequencies in the context of Law Enforcement Plans and Incident Response Plans.

5. Recommended Procedure:

The DOJ Wireless Management Office document referenced in Section 3 specifies the recommended procedure for use of the LE and IR frequencies.

State and local agencies operating in the metro area are encouraged to obtain FCC licenses and equip themselves with channels LE2, LE12, IR2 and IR12.

6. Management:

The management of the LE and IR frequencies is governed by FCC and NTIA regulations and the conditions enumerated by the US Department of Justice in the DOJ Wireless Management Office document referenced in Section 3.

Local users of these US Government frequencies in the metro region who acquire and maintain radio equipment necessary for use including, but not limited to, cache radios and portable repeaters will document these resources in the metro region Tactical Interoperable Communications Plan (TICP) managed by the Metropolitan Emergency Services Board.

U. S. Department of Justice - Wireless Management Office
High Risk Metropolitan Area Interoperability Assistance Program
Law Enforcement Plan & Incident Response Plan Frequencies
October 1, 2007

The following information is being set forth regarding use of the Law Enforcement Plan (LEP) frequencies and the Incident Response Plan (IRP) frequencies. The Department of Justice, Wireless Management Office, Frequency Coordinators, have completed a frequency study of these designated frequencies, and have set forth in the below tables the frequencies that are currently available for use in twenty-five metropolitan areas throughout the United States.

4.3.16 Plans for Federal Interoperability Channels for Interagency Law Enforcement and Incident Response Operations in the Bands 162-174 MHz and 406.1-420 MHz

CONDITIONS FOR USE

1. The plans shown in the below listed tables show frequencies available for assignment to all Federal agencies to satisfy law enforcement and public safety incident response interoperability requirements. These frequencies will be referred to hereinafter as “Federal Interoperability Channels”.
2. The Federal Interoperability Channels are available for use among federal agencies and between federal agencies and non-federal entities with which federal agencies have a requirement to operate. The channels are available to federal agencies on a shared basis and will not be authorized for the exclusive use of any one federal agency.
3. The channels are available to non-federal entities to enable joint federal/nonfederal operations for law enforcement and incident response, subject to the condition that harmful interference will not be caused to federal stations. These channels are restricted to interoperability communications and are not authorized for routine or administrative uses.
4. Extended operations and congestion may lead to frequency conflicts. Coordination with NTIA is required to resolve these conflicts.
5. **Only narrowband emissions** are to be used on the Federal Interoperability Channels.
6. Federal agencies should have an assignment in the Government Master File (GMF) or be included in the Joint Applications (*JNT) circuit remarks in accordance with Chapter 9 of the NTIA Manual.
7. Exceptions to the above restrictions will be considered by the Interdepartment Radio Advisory Committee (IRAC)/Frequency Assignment Subcommittee (FAS) on a case-by-case basis.

LAW ENFORCEMENT PLANS

1. Frequency identifiers LE A and LE B are designated as National Calling Channels for initial contact and will be identified in the radio as indicated in the below listed tables.

2. Initial contact communications will be established using analog FM emission (11KF3E).
3. The interoperability channels will be identified in mobile and portable radios as follows with Continuous Tone-Controlled Squelch Systems (CTCSS) frequency as specified in the U. S. Department of Justice - Wireless Management Office High Risk Metropolitan Area Interoperability Assistance Program Law Enforcement Plan & Incident Response Plan.

INCIDENT RESPONSE PLANS

1. Frequency identifiers NC 1 and NC 2 are designated as the calling channels for initial contact and will be identified in the radio as indicated in the below listed tables.
2. Initial contact will be established using analog FM emission (11KF3E).
3. To ensure access by stations from outside the normal area of operation, CTCSS will not be used on the calling channels.
4. The Interoperability channels will be identified in mobile and portable radios as follows:

The FBI, USMS, and the U.S. Coast Guard HQ have agreed to program their agency radios in the following format.

The LE Plan channels should be programmed in **P25 digital mode** using the above NAC code specified in the U. S. Department of Justice - Wireless Management Office High Risk Metropolitan Area Interoperability Assistance Program Law Enforcement Plan & Incident Response Plan , with the exception of LE Plan channels **LE A, LE 1, LE B, LE 10, and LE 16**, which should be programmed as narrowband analog, with a mobile TX PL as specified in the U. S. Department of Justice - Wireless Management Office High Risk Metropolitan Area Interoperability Assistance Program Law Enforcement Plan & Incident Response Plan and a mobile RX PL of Carrier Squelch (CSQ).

The IR Plan channels should be programmed in **narrowband analog mode** using Continuous Tone-Controlled Squelch Systems (CTCSS) frequency as specified in the U. S. Department of Justice - Wireless Management Office High Risk Metropolitan Area Interoperability Assistance Program Law Enforcement Plan & Incident Response Plan for mobile transmit, and Carrier Squelch (CSQ) for mobile receive.

Please note that the only frequency identifiers that are currently available for use are the **Shaded Frequency Identifiers Listed Below**. **Use of the non-shaded frequency identifiers in the below listed areas could cause harmful interference to other government users.**

The National Interoperability Frequency Quick Guide has been modified to add the agreed upon CTCSS & NAC codes recommended by FBI, USMS, and the U.S. Coast Guard. A frequency redacted version of that table is included below for reference.

Most Federal agencies have their channel assignments listed in the subscriber equipment according to the NTIA ID listed below. The NCC ID is listed for informational purposes.

VHF Incident Response (IR) Federal Interoperability Channel Plan* - USDOJ CTCSS & NAC Recommended Setup

Assignment	NCC ID ??	NTIA ID	Mobile TX(MHz) CTCSS	Mobile RX(MHz)
Incident Calling	1FCAL40	NC 1 Calling		
Incident Command 1	1FTAC41	IR 1		
Medical Evacuation Control	1FTAC42	IR 2		
Logistics Control	1FTAC43	IR 3		
Interagency Convoy	1FTAC44	IR 4		
Incident Calling (Direct)	1FCAL40D	IR 5		
Incident Command 1 (Direct)	1FTAC41D	IR 6		
Medical Evacuation Control (Direct)	1FTAC42D	IR 7		
Logistics Control (Direct)	1FTAC43D	IR 8		
Interagency Convoy (Direct)	1FTAC44D	IR 9		

*See "Conditions for Use of Federal Interoperability Channels" above.

UHF Incident Response (IR) Federal Interoperability Channel Plan* - USDOJ CTCSS & NAC Recommended Setup

Assignment	NCC ID ??	NTIA ID	Mobile TX(MHz) CTCSS	Mobile RX(MHz)
Incident Calling	4FCAL52	NC 2 Calling		
Ad hoc assignment	4FTAC53	IR 10		
Ad hoc assignment	4FTAC54	IR 11		
SAR Incident Command	4FTAC55	IR 12		
Ad hoc assignment	4FTAC56	IR 13		
Interagency Convoy	4FTAC57	IR 14		
Incident Calling (Direct)	4FCAL52D	IR 15		
Ad hoc assignment	4FTAC53D	IR 16		
Ad hoc assignment	4FTAC54D	IR 17		
SAR Incident Command (Direct)	4FTAC55D	IR 18		

*See "Conditions for Use of Federal Interoperability Channels" above.

VHF Law Enforcement (LE) Federal Interoperability Channel Plan* - USDOJ CTCSS & NAC Recommended Setup

Description	NCC ID ??	NTIA ID	Mobile TX(MHz) CTCSS	Mobile RX(MHz)
Calling	1FCAL35D	LE A		
Tactical	1FCAL35	LE 1		
Tactical	1FLAW36	LE 2		
Tactical	1FLAW37	LE 3		
Tactical	1FLAW38	LE 4		
Tactical	1FLAW39	LE 5		
Tactical	1FLAW36D	LE 6		
Tactical	1FLAW37D	LE 7		
Tactical	1FLAW38D	LE 8		
Tactical	1FLAW39D	LE 9		

*See "Conditions for Use of Federal Interoperability Channels" above.

UHF Law Enforcement (LE) Federal Interoperability Channel Plan* - USDOJ CTCSS & NAC Recommended Setup

Description	NCC ID ??	NTIA ID	Mobile TX(MHz) CTCSS	Mobile RX(MHz)
Calling	4FCAL45D	LE B		
Tactical	4FLAW46	LE 10		
Tactical	4FLAW47	LE 11		
Tactical	4FLAW48	LE 12		
Tactical	4FLAW49	LE 13		
Tactical	4FLAW50	LE 14		
Tactical	4FLAW51	LE 15		
Tactical	4FLAW46D	LE 16		
Tactical	4FLAW47D	LE 17		


Tactical	4FLAW48D	LE 18	
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The frequency identifiers listed below are cleared for fixed, mobile and/or portable applications within 100 kilometers from the Latitude (LAT) and Longitude (LONG) listed in the title of the table, effective November, 2006.

Minneapolis, MN [445846N / 0931558W] 100KM					
Law Enforcement (LE) Channel Availability					
VHF Plan			UHF Plan		
Identifier	Mobile Tx (MHz)	Mobile Rx (MHz)	Identifier	Mobile Tx (MHz)	Mobile Rx (MHz)
LE A			LE B		
LE 1			LE 10		
LE 2			LE 11		
LE 3			LE 12		
LE 4			LE 13		
LE 5			LE 14		
LE 6			LE 15		
LE 7			LE 16		
LE 8			LE 17		
LE 9			LE 18		

 = Available for use

Minneapolis, MN [445846N / 0931558W] 100KM					
Incident Response (IR) Channel Availability					
VHF Plan			UHF Plan		
Identifier	Mobile Tx (MHz)	Mobile Rx (MHz)	Identifier	Mobile Tx (MHz)	Mobile Rx (MHz)
NC 1			NC 2		
IR 1			IR 10		
IR 2			IR 11		
IR 3			IR 12		
IR 4			IR 13		
IR 5			IR 14		
IR 6			IR 15		
IR 7			IR 16		
IR 8			IR 17		
IR 9			IR 18		

 = Available for use



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Fax-On-Demand 202 / 418-2830
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Internet: <http://www.fcc.gov>
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DA 01-1621

Released: July 13, 2001

Federal Government Spectrum Available for Public Safety Interoperability Communications

The purpose of this Public Notice is to remind the public safety community that the National Telecommunications and Information Administration (NTIA) has specified forty (40) Federal Government frequencies that can be used by non-Federal government public safety entities (*see* 47 C.F.R. § 90.20 for eligibility criteria) for communications involving coordination and cooperation with Federal Government agencies.¹ These frequencies may **not** be used to meet the day-to-day communications needs of non-Federal government public safety entities. Due to previous frequency authorizations to Federal Government agencies, not all channels will be available at all locations. The specific frequencies available are listed in the attached Appendix. The rules governing the use of these frequencies (power, bandwidth, *etc.*) are set forth in Section 4.3.16 of the NTIA Manual (Manual of Regulations and Procedures for Federal Radio Frequency Management – *see* NTIA's web page at www.ntia.doc.gov/osmhome/redbook/redbook.html).

In order for non-Federal public safety entities to use these frequencies they must obtain a license from the Federal Communications Commission (FCC). License applications must contain written certification from a Federal Government agency that use of the requested frequency or frequencies is necessary to improve interoperability communications between the applicant and the Federal Government agency during emergencies. Frequency coordination with a FCC-certified frequency coordinator is not required for these frequencies. The FCC will submit all applications received for these frequencies to NTIA's Interdepartment Radio Advisory Committee's Frequency Assignment Subcommittee for approval. Operation on the frequencies is not permitted until a FCC license is granted. Once a license is granted, the licensee must provide a copy of the license to the Federal Government agency or agencies with which it will be communicating.

For further information about FCC licensing, contact the ULS Hotline at 1-888-225-5322 and select Option 2 from the menu. For more information about NTIA's interoperability frequencies, contact the NTIA Office of Spectrum Management's Frequency Assignment Branch at 202-482-1132 or the Public Safety Program Office at 202-501-5487.

¹ These frequencies are available for public safety use under Sections 2.102(c) and 90.173(c) of the Rules (*see* 47 C.F.R. §§ 2.102(c) and 90.173(c)).

Action by the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau.