



Statewide Interoperability Radio Network (SIRN) Standards, Protocols, Procedures



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State Standard Number	1.15.0	
Standard Title	National and State Mutual Aid Conventional Channels	
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1. Purpose or Objective.

The purpose of this Standard is to establish procedures for the programming of national mutual aid conventional channels by the State’s SIRN users. *National and State Mutual Aid Conventional Channels* are a set of repeated and simplex conventional frequencies in each of the VHF, UHF, 700 MHz, and 800 MHz bands designed for multi-jurisdictional incident response and coordination.

This policy will also serve to facilitate coordinated use of these shared resources and to minimize usage conflicts when regional and statewide interoperability talkgroups are needed for multiple incidents.

2. Technical Background

- **Capabilities**

Within the State of North Dakota, National and State Mutual Aid Conventional Channels will enable users to have direct unit-to-unit communications during multi-jurisdictional and multi-agency responses and consistent with the agency’s Communications Plans.

The National and State Mutual Aid Conventional Channels also equip State and Local users with communications capabilities that may be used nationwide if the state’s personnel resources are deployed elsewhere in the United States.

- **Constraints**

Effective use of the National and State Mutual Aid Conventional Channels requires proper planning, trained technical resources, and the adoption of communications plans and recurring exercises.

3. Operational Context

National and State Mutual Aid Conventional Channels are resources intended to facilitate communications among different agencies and service branches, including Federal, when the SIRN Interoperability Talkgroups are unavailable or if use of conventional resources (repeated or simplex) is better aligned with the incident response plan.

4. Recommended Protocol/ Standard

- All devices operating on SIRN as their primary two-way radio solution **MUST** be programmed





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with the 700/800 MHz Mutual Aid Conventional Channels. A complete list of channels is provided in Appendix A.

- All counties will share their CW MA 3 and CW MA 4 with adjacent counties for cross border county interoperability
- All dual band devices operating on SIRN as their primary two-way radio solution MUST be programmed with the VHF Mutual Aid Conventional Channels.
- All dual band /multi band devices operating on SIRN as their primary two-way radio solution MUST be programmed with the 700 MHz and VHF Mutual Aid Conventional Channels

Reference SIRN Standard *1.8.0 SIRN Minimum Programming Standard*.

5. Recommended Procedure

State and Federal Regulations

- Use of National Mutual Aid Channels MUST comply with applicable FCC, ANSI and NTIA standards and rules.

Coordination and Use

As shared interoperable resources, the Mutual Aid Conventional Channels require planning and coordination as described below:

- Units requiring use of the mutual aid conventional channels shall verify that the channel is available via on-air announcement before use.
- Use of the Mutual Aid Conventional Channels will generally be determined through ICS-205 Plans developed by State or local agencies. Such Incident Communications plans will delineate how the Mutual Aid Conventional Channels will be requested, approved, monitored, and deactivated.
- The Mutual Aid Conventional Channels are nationwide resources and hence may require coordination with neighboring states.
- Communications Plans shall designate a Communications Liaison responsible for designing and implementing Mutual Aid Conventional Channels usage for the duration of incidents.
- In some cases, Mutual Aid Conventional Channels may need to be pre-reserved or assigned by request. If an incident is designated to require approval for the use of Mutual Aid Conventional Channels, agencies seeking to use these resources shall indicate (i) purpose, (ii) expected duration for use, (iii) incident point of contact, and (iv) requested number of ND MAs (or Regional MAs). Examples include large, localized incidents with multiple state, local or federal agencies requiring access to these conventional resources.

Training Exercises

Training on the use of Mutual Aid Conventional Channels and similar communications preplans is encouraged.

Unit Identification





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When operating on the Mutual Aid Conventional Channels, users should initially identify themselves using plain English.

Use of 10-Codes and Acronyms

Users should not use 10-codes, signals, unique acronyms, or other codes on the Mutual Aid Conventional Channels following NIMS standards. Plain language should be used in all cases. See SIRN *Standard 1.3.0 North Dakota Plain Language*.

Termination of Use

At the end of the event, the initiating dispatch center will clear the Status Board so other communication centers will know this resource is available for use.

Additional Channels and Canadian Interference Restriction

Additional 700 MHz channels are available for simplex use; however, those channels are restricted for use within 100 km of the Canadian Border. Agencies requiring additional 700 MHz simplex channels should inquire with the regional administrator or the SIRN statewide system administrator.

6. Management

The Statewide System Administrator, in conjunction with the SIEC, shall ensure that the policy and procedure herein for usage and assignment of the regional and statewide interoperability talkgroups is followed.



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Appendix A: National Mutual Aid Conventional Channels

800 MHz

Name	Base Station Transmit	Base Station Receive	CTSS	Monitoring Agency	Use
8CALL90	851.0125	806.0125	156.7	ALL	Haling Channel
8CALL90D	851.0125	851.0125	156.7		
8TAC91	851.5125	806.5125	156.7		
8TAC91D	851.5125	851.5125	156.7		
8TAC92	852.0125	807.0125	156.7		
8TAC92D	852.0125	852.0125	156.7		
8TAC93	852.5125	807.5125	156.7		
8TAC93D	852.5125	852.5125	156.7		
8TAC94	853.0125	808.0125	156.7		
8TAC94D	853.0125	853.0125	156.7		

700 MHz Mutual Aid Conventional Channels

Name	Primary Use	Base Station Transmit	Base Station Receive	NAC Tone	Canada Restriction
7CALL50/50D	7CALL50 - Primary Calling	769.24375	799.24375	293 NAC	
7TAC51/51D	7TAC51 - General Public Safety	769.14375	799.14375	293 NAC	
7TAC52/52D	7TAC52 - General Public Safety	769.64375	799.64375	293 NAC	
7TAC53/53D	7TAC53 - General Public Safety	770.14375	800.14375	293 NAC	
7TAC54/54D	7TAC54 - General Public Safety	770.64375	800.64375	293 NAC	
7TAC55/55D	7TAC55 - General Public Safety	769.74375	799.74375	293 NAC	
7TAC56/56D	7TAC56 - General Public Safety	770.24375	800.24375	293 NAC	
7GTAC57/57D	7GTAC57 - Other Public Service	770.99375	800.99375	293 NAC	
7MOB59/59D	7MOB59 - Mobile Repeater	770.89375	800.89375	293 NAC	
7LAW61/61D	7LAW61 - Law Enforcement	770.39375	800.39375	293 NAC	
7LAW62/62D	7LAW62 - Law Enforcement	770.49375	800.49375	293 NAC	
7FIRE63/63D	7FIRE63 - Fire	769.89375	799.89375	293 NAC	
7FIRE64/64D	7FIRE64 - Fire	769.99375	799.99375	293 NAC	
7MED65/65D	7MED65 - EMS	769.39375	799.39375	293 NAC	
7MED66/66D	7MED66 - EMS	769.49375	799.49375	293 NAC	



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Name	Primary Use	Base Station Transmit	Base Station Receive	NAC Tone	Canada Restriction
7DATA69/69D	7DATA69 - Mobile Data	770.74375	800.74375	293 NAC	
7CALL70/70D	7CALL70 - Secondary Calling	773.25625	803.25625	293 NAC	
7TAC71/71D	7TAC71 - General Public Safety	773.10625	803.10625	293 NAC	
7TAC72/72D	7TAC72 - General Public Safety	773.60625	803.60625	293 NAC	
7TAC73/73D	7TAC73 - General Public Safety	774.10625	804.10625	293 NAC	
7TAC74/74D	7TAC74 - General Public Safety	774.60625	804.60625	293 NAC	
7TAC75/75D	7TAC75 - General Public Safety	773.75625	803.75625	293 NAC	
7TAC76/76D	7TAC76 - General Public Safety	774.25625	804.25625	293 NAC	
7GTAC77/77D	7GTAC77 - Other Public Service	774.85625	804.85625	293 NAC	
7MOB79/79D	7MOB79 - Mobile Repeater	774.50625	804.50625	293 NAC	
7LAW81/81D	7LAW81 - Law Enforcement	774.00625	804.00625	293 NAC	
7LAW82/82D	7LAW82 - Law Enforcement	774.35625	804.35625	293 NAC	
7FIRE83/83D	7FIRE83 - Fire	773.50625	803.50625	293 NAC	
7FIRE84/84D	7FIRE84 - Fire	773.85625	803.85625	293 NAC	
7MED86/86D	7MED86 - EMS	773.00625	803.00625	293 NAC	
7MED87/87D	7MED87 - EMS	773.35625	803.35625	293 NAC	
7DATA89/89D	7DATA89 - Mobile Data	774.75625	804.75625	293 NAC	

700 MHz “Air-to-Ground” Mutual Aid Conventional Channels

Name	Primary Use	Base Station Transmit	Base Station Receive	NAC Tone	Monitoring Agency
7AG58	Air-Ground	769.13125	799.13125	293 NAC	
7AG60	Air-Ground	769.63125	799.63125	293 NAC	
7AG67	Air-Ground	770.13125	800.13125	293 NAC	
7AG68	Air-Ground	770.63125	800.63125	293 NAC	
7AG78	Air-Ground	773.11875	803.11875	293 NAC	
7AG80	Air-Ground	773.61875	803.61875	293 NAC	
7AG85	Air-Ground	774.11875	804.11875	293 NAC	
7AG88	Air-Ground	774.61875	804.61875	293 NAC	



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VHF Mutual Aid Conventional Channels

Name	Primary Use	Base Station Transmit	Base Station Receive	CTSS Tx/Rx	Monitoring Agency
VCALL10	VCALL10 - Calling	155.75250	155.75250	156.7	
VTAC11	VTAC11/36 - Tactical/Repeater	151.13750	151.13750	156.7	
VTAC12	VTAC12/37 - Tactical/Repeater	154.45250	154.45250	156.7	
VTAC13	VTAC13/38 - Tactical/Repeater	158.73750	158.73750	156.7	
VTAC14	VTAC14/33 - Tactical/Repeater	159.47250	159.47250	156.7	
VFIRE21	Fire Tactical	154.28000	154.28000	156.7	
VFIRE22	Fire Tactical	154.26500	154.26500	156.7	
VFIRE23	Fire Tactical	154.29500	154.29500	156.7	
VFIRE24	Fire Tactical	154.27250	154.27250	156.7	
VFIRE25	Fire Tactical	154.28750	154.28750	156.7	
VFIRE26	Fire Tactical and Air-to-Ground with State & Federal Aircraft ONLY	154.30250	154.30250	156.7	
VMED28	Medical Tactical & Air-to-Ground with Medical Aircraft	155.34000	155.34000	156.7	
VMED29	Medical Tactical	155.34750	155.34750	156.7	
VLAW31	Law Enforcement Tactical	155.47500	155.47500	156.7	
VLAW32	Law Enforcement Tactical	155.48250	155.48250	156.7	