



Department of Emergency Services

Advisory Committee

February 17, 2012



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Department of Emergency Services
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Topics

- Computer Aided Dispatch
- Statewide Baseline Map
- Computer Electronics Bank (CEB)
- Message Switch Update
- Statewide Records Management System (RMS)
- State Radio Tower Study
- Bank 5 Interoperability Plan Deployment
- Narrow banding



ND Department of Emergency Services

*Ensuring a safe and secure
homeland for all North Dakotans*

Computer Aided Dispatch CAD

Statewide CAD Deployment

- Cost
 - \$1,060. per computer license
 - \$250. per year maintenance
- Additional Equipment Required
 - Computer that meets specifications
 - Secure connectivity to server
- Deployment
 - Week of March 5th training on server connection
 - Training manual from Highway Patrol

Statewide Base Map

Flight Status

Flight/Image Capture Work

- Block 48100 is 62% complete
- Block 47098 is 100% complete
- Block 46103 is 100% complete
- Block 46102 is 100% complete
- Block 46098 is 100% complete
- Block 46101 is 100% complete
- Block 48102 is 50% complete
- Block 48103 is 62% complete
- Block 47103 is 100% complete
- Block 46100 is 100% complete
- Block 46099 is 100% complete
- Block 47099 is 100% complete
- Block 47100 is 100% complete
- Block 46096 is 50% complete
- Block 47101 is 22% complete
- Block 47097 is 56% complete
- Block 46097 is 100% complete

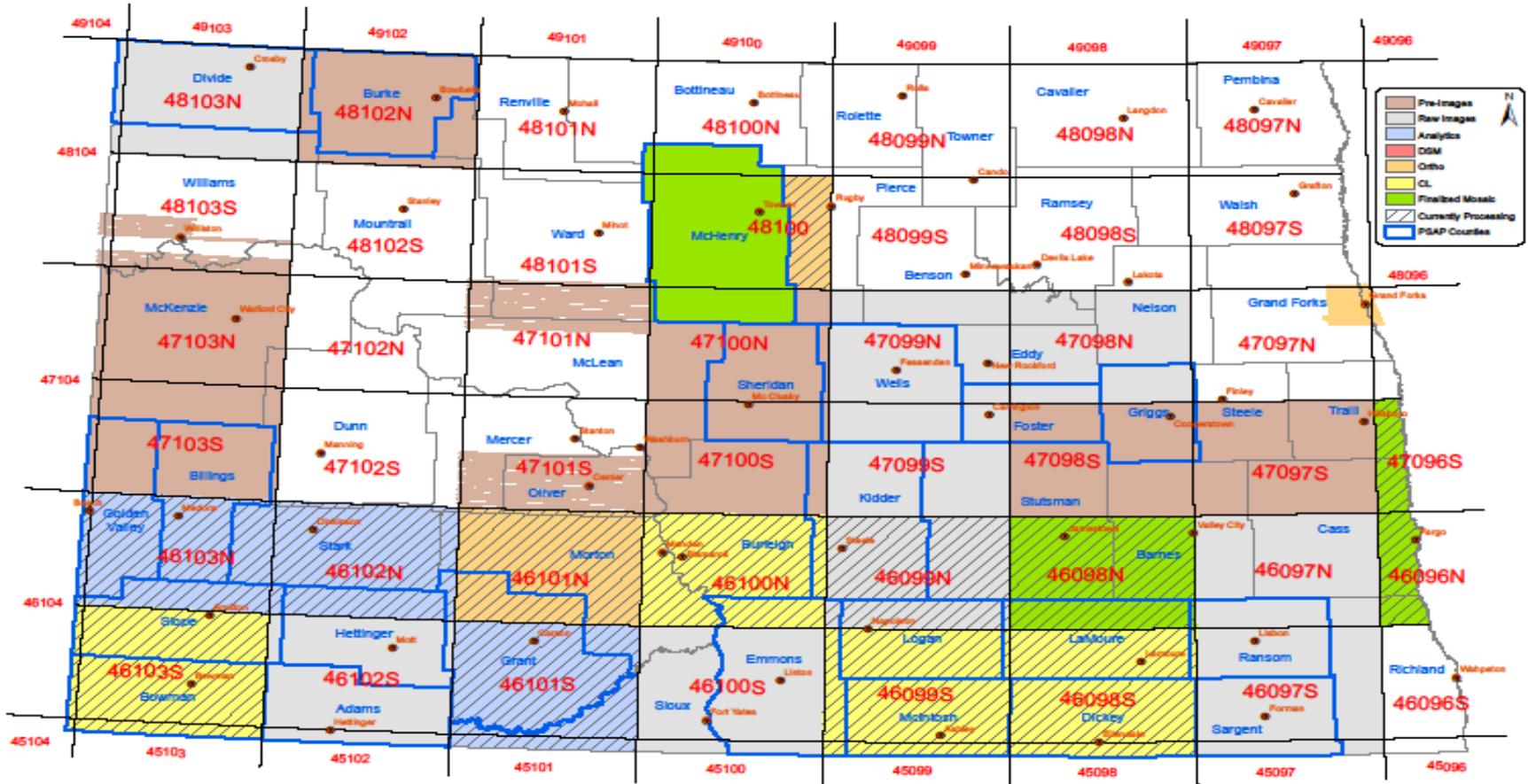
Image creation work

- Block 48100 N is 30% complete
- Block 48100 S is 95% complete
- Block 47098 N is 49% complete
- Block 46103 N is 19% complete
- Block 46103 S is 100% complete
- Block 46102 N is 42% complete
- Block 46102 S is 19% complete
- Block 46098 N is 100% complete
- Block 46098 S is 100% complete
- Block 46101 N is 99% complete
- Block 46101 S is 96% complete
- Block 46100 N is 100% complete
- Block 46100 S is 19% complete
- Block 46099 S is 100% complete
- Block 47099 N is 19% complete
- Block 47099 S is 19% complete
- Block 46096 N is 100% complete
- Block 46097 N is 14% complete
- Block 47096 S is 100% complete
- Block 47097 N is 10% complete

Statewide Base Map Processing



Quad Processing Progress



Updated: 2/7/2012

Centerline Digitizing Work

- Block 48100 N is 30.0% complete
- Block 48100 S is 95% complete
- Block 46103 S is 75% complete
- Block 46098 N is 100% complete
- Block 46098 S is 90% complete
- Block 46096 N is 100% complete
- Block 46100 N is 50% complete
- Block 46096 S is 50% complete
- Block 46099 S is 15% complete

Statewide Base Map Addressing Layer

Statewide base map with sub meter accuracy

- *RFP Process Complete*
- *Contract negotiations progressing with GeoComm, St Cloud, Minnesota*
- *Schedule Variance – 64.5% Behind*
- *Budget Variance – 27.7% Under*
- *Projected new baseline planned after contract completion*
- *Estimated completion date: 2013*

Computer Electronics Bank

CEB

Computer Electronics Bank

CEB is the infrastructure between the towers and the dispatch stations. The CEB was at manufacture end of life and would only allow 2 additional towers.

- *Currently in RFP process distributed January 27, 2012*
- *Vendor questions received and answered*
- *Vendor site visits February 15, 2012*
- *Target completion date June 1, 2012*

Message Switch Update

Message Switch Update

Current message switch doesn't meet the current ITD security update levels. Project to upgrade the hardware and software of the switch.

- Sole Source purchased approved with Computer Projects of Illinois (CPI)
- New system Open Fox configurator program installed as ongoing maintenance

Statewide Records Management System

Statewide Records Management System

Second phase of CAD. Project to implement a statewide law enforcement records management system (RMS).

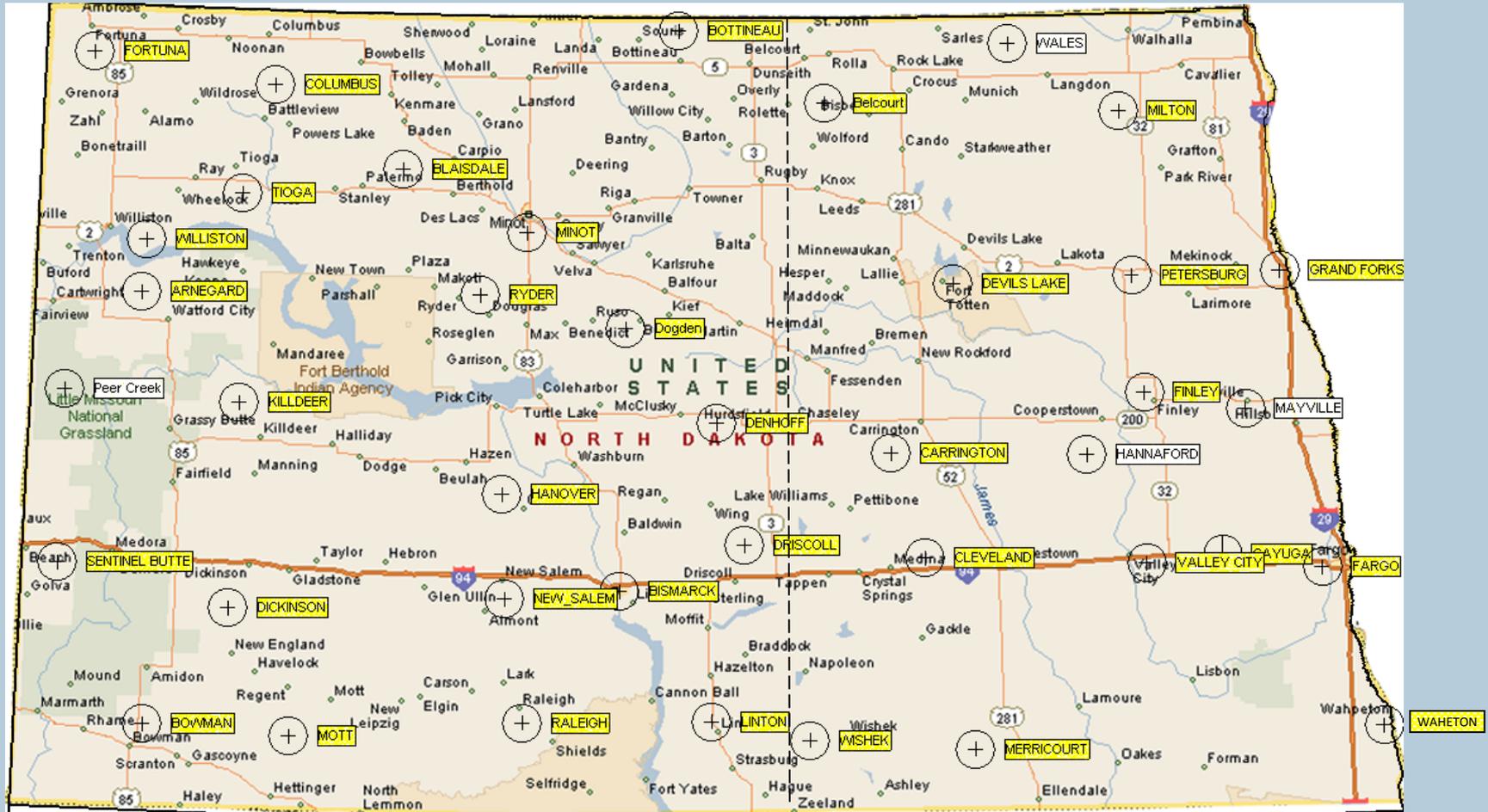
- *Partnered with North Dakota Criminal Justice Information System (ND CJIS) to replace or upgrade the current ND CJIS RMS.*
- *RFP development in final steps*

State Radio Tower Gap

State Radio Tower Gaps

- *In 2010 a study was conducted*
- *Study parameters:*
 - *50 watt mobile radio coverage*
 - *Analog narrow banded*

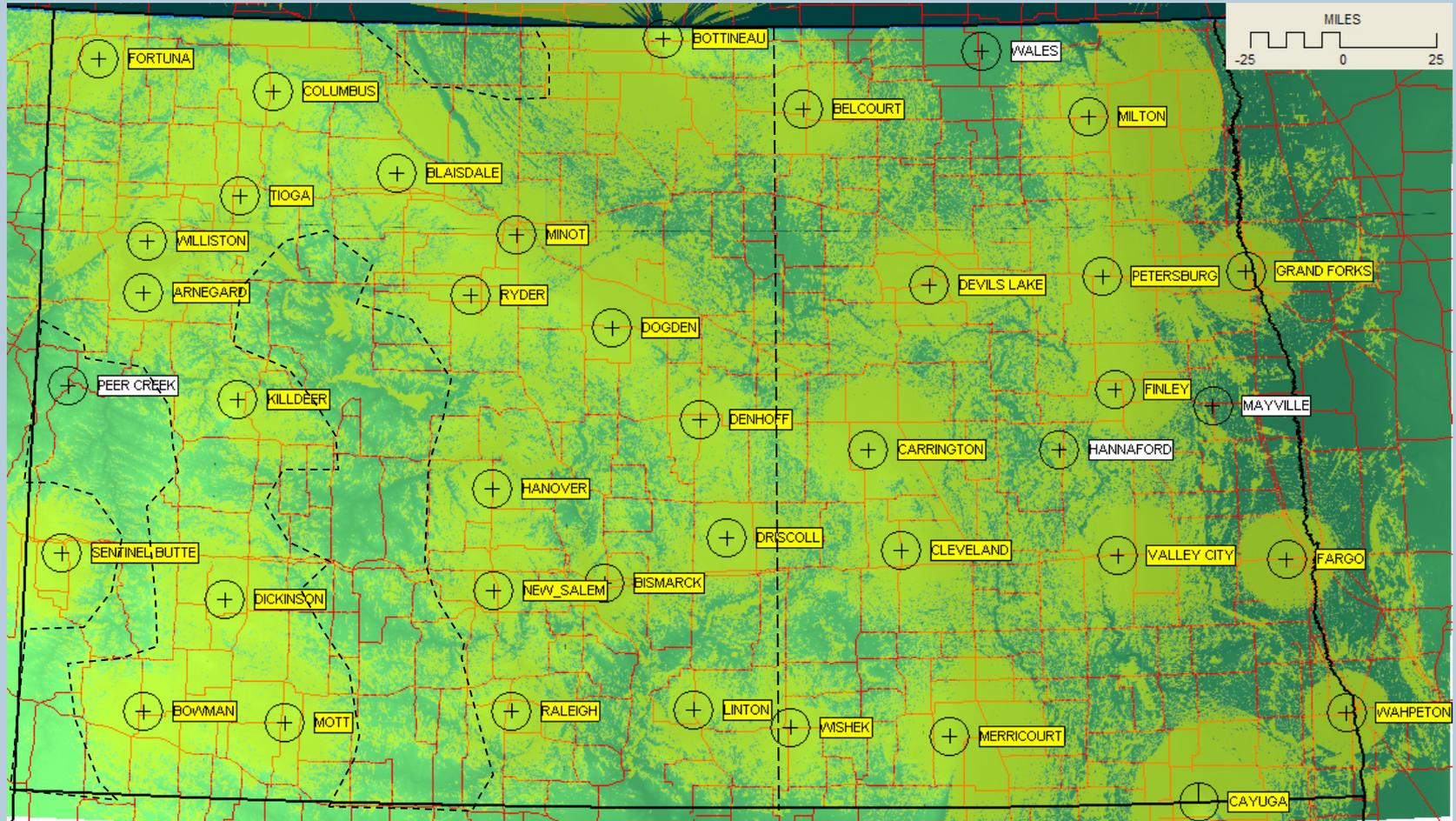
Fixed Site Locations



 Statewide System & DOT sites

 DOT only sites

Only Statewide Radio Sites Active



 Statewide System & DOT sites

 DOT only sites

 Primary gap areas

Potential New Site Locations – Mobile Coverage

Site Name	Latitude	Longitude	County, State	Antenna Azimuth (Degrees)	Effective Radiated Power ERPd	Antenna Height (Meters / Feet)
HANNAFORD	47:19:40.0:N	98:12:35.3:W	GRIGGS, ND	6dB OMNI	100 dBW	60 / 196.9
MAYVILLE	47:29:1.9:N	97:19:28.3:W	TRAILL, ND	6dB OMNI	100 dBW	26 / 85.3
PEER CREEK	47:31:51.1:N	103:51:31.7:W	MCKENZIE, ND	6dB OMNI	100 dBW	21 / 68.9
WALES	48:53:50.0:N	98:36:9.4:W	CAVALIER, ND	6dB OMNI	100 dBW	25 / 82.0
KDR780	46:02:21.1:N	98:54:37.2:W		6dB OMNI	100 dBW	55.9 / 183.4
KDU569	48:56:12:N	99:56:42.5:W		6dB OMNI	100 dBW	80 / 262.5
WPEC581	46:26:13.9:N	97:40:02.4:W		6dB OMNI	100 dBW	50 / 164.0
WPFK637	48:45:55.1:N	101:41:46.6:W	RENVILLE, ND	6dB OMNI	100 dBW	102 / 334.6
WPKC870	46:16:52.0:N	103:57:43.0:W	SLOPE, ND	6dB OMNI	100 dBW	24.4 / 80.1
WPKW702	46:01:06:N	99:28:00.5:W		6dB OMNI	100 dBW	56 / 183.7
WPNV674	48:54:53:N	97:55:33.3:W		6dB OMNI	100 dBW	19 / 62.3
WQEB919	47:40:9.0:N	102:25:25.0:W	MOUNTRAIL, ND	6dB OMNI	100 dBW	50 / 164.0
WQGJ209	46:24:12.0:N	101:50:57.0:W	GRANT, ND	6dB OMNI	100 dBW	10 / 32.8
WQIR328	446:05:58.7:N	100:38:07.2:W		6dB OMNI	100 dBW	25.5 / 83.7

Note: Fixed site ERPd is provided for future reference. All coverage depicted is talk back with a 50 watt mobile radio.

Future

- *General Fund allocation for FY 2011-2013 for possible four (4) tower builds.*
- *Future allocations*

Bank 5 Interoperable Plan



ND Department of Emergency Services

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Mandates

- **Mobile Radios**

- *Minimum of 5 Banks*
- *Interoperable Bank located in Bank 5*
- *Mutual Aid Channel 3 (Common Name VLAW31) located in every bank with conditions*

- **Portable Radios**

- *Mutual Aid Channel 3 (Common Name VLAW31) located in every bank with conditions*

	BANK/ZONE	BANK/ZONE	BANK/ZONE	BANK/ZONE	BANK/ZONE
	1	2	3	4	5
	CITY	COUNTY	STATE/COMMON	MULTI AGENCY	S T A T E W I D E I N T E R O P
CH 1	JAMESTOWN PD	COUNTY LGR	STATE CH 1 TX	COUNTY LGR	
CH 2	JAMESTOWN PD (OPNS)	STUTSMAN SO	STATE CH 2 TX	COUNTY OPNS	
CH 3	ST 3 MUTUAL AID	ST 3 MUTUAL AID	ST 3 MUTUAL AID	ST 3 MUTUAL AID	
CH 4	JAMESTOWN FIRE (City)	CLEVELAND FIRE	ST 4 FIRE	BARNES SO	
CH 5	JAMESTOWN FIRE (Rural)	COURTENAY FIRE	ST 5 EMS/HOSP	FOSTER SO	
CH 6	JMSTN HAZMAT	KENSAL FIRE	STATE CH 1 RX	KIDDER SO	
CH 7	JAMESTOWN EMS	MEDINA FIRE	STATE CH 2 RX	LAMOURE SO	
CH 8	JAMESTOWN PW DEPT	PINGREE FIRE		CARRINGTON EMS	
CH 9	JAMESTOWN SCHOOLS	STREETER FIRE		VALLEY CITY EMS	
CH 10	LOCAL HOSPITAL	WOODWORTH FIRE		EDGELEY EMS	
CH 11		MEDINA EMS		VALLEY CITY FIRE	
CH 12		STUTSMAN HWY DEPT		CARRINGTON FIRE	
CH 13		KENSAL SCHOOL DIST		EDGELEY FIRE	
CH 14				FARGO FIRE	
CH 15					
CH 16					
CH 17					
CH 18					

Local Jurisdiction Frequencies

State/Common Frequencies

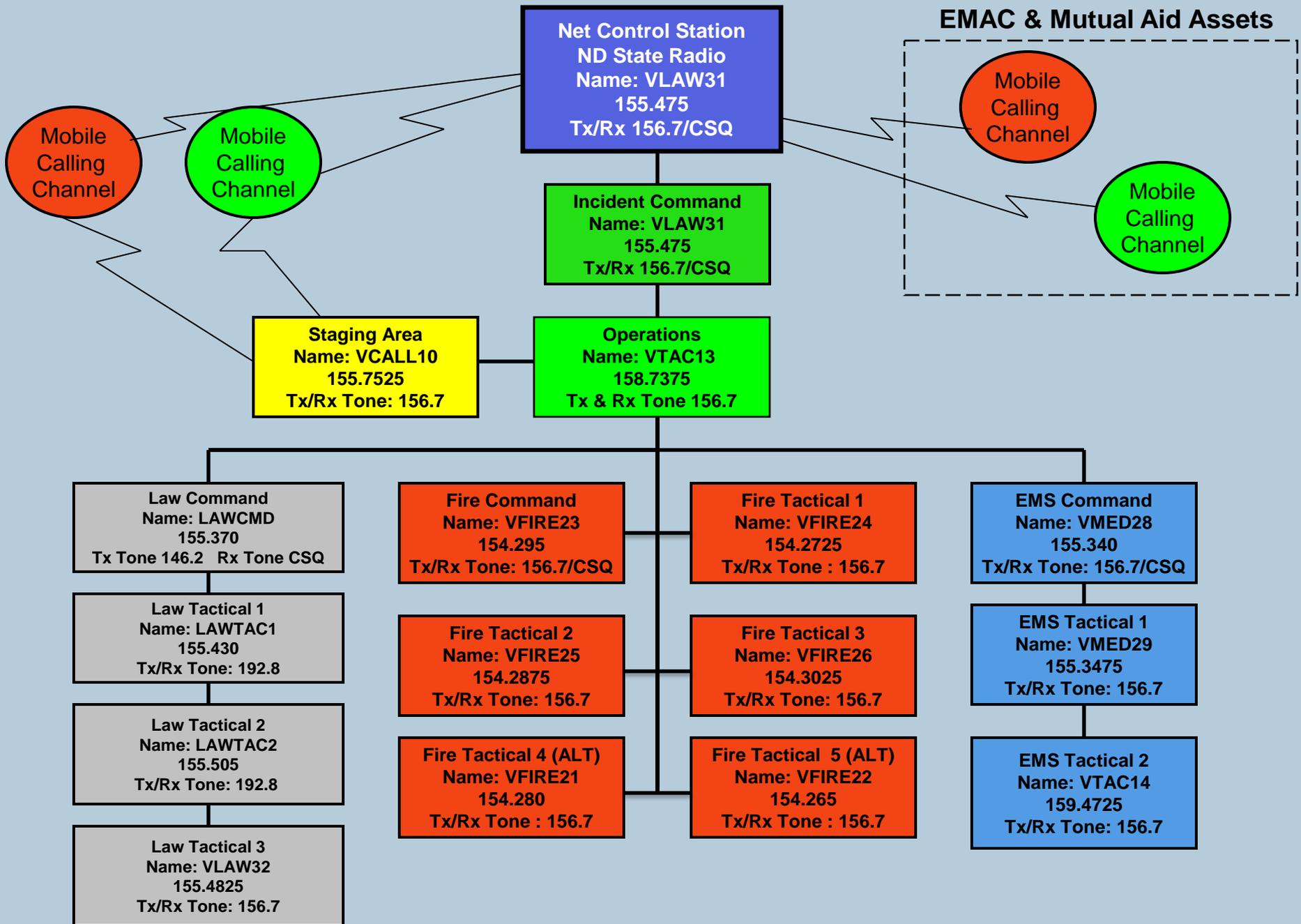
Statewide Interoperable Frequencies

STATEWIDE INTEROPERABILITY BANK/ZONE 5

	Rx/Tx FREQ	<u>Tx/Rx</u> CTCSS Tone	Primary/Intended Use	Common Name
CH1			NOT USED	
CH2			NOT USED	
CH3	155.475	156.7/CSQ	State Radio NCS and Incident/Unified Command Net	VLAW31
CH4	151.1375	156.7	Incident/Unified Command Net (Alternate/Spare)	VTAC11
CH5	154.4525	156.7	Incident/Unified Command Net (Alternate/Spare)	VTAC12
CH6	158.7375	156.7	Operations Section Chief Net	VTAC13
CH7	155.7525	156.7	Staging Area Manager Net	VCALL10
CH8	155.370	146.2/CSQ	Law Command (Lead Tactical Law Enforcement Official)	LAWCMD
CH9	155.430	192.8	Law Tactical 1 (Law Division/Branch/Group)	LAWTAC1
CH10	155.505	192.8	Law Tactical 2 (Law Division/Branch/Group)	LAWTAC2
CH11	155.4825	156.7	Law Tactical 3 (Alternate/Spare)	VLAW32
CH12	154.295	156.7/CSQ	Fire Command (Lead Tactical Fire Official)	VFIRE23
CH13	154.2725	156.7	Fire Tactical 1 (Fire Division/Branch/Group)	VFIRE24
CH14	154.2875	156.7	Fire Tactical 2 (Fire Division/Branch/Group)	VFIRE25
CH15	154.3025	156.7	Fire Tactical 3 (HazMat)	VFIRE26
CH16	154.280	156.7	Fire Tactical 4 (Alternate/Spare)	VFIRE21
CH17	154.265	156.7	Fire Tactical 5 (Alternate/Spare)	VFIRE22
CH18	155.340	156.7/CSQ	EMS Command (Lead Tactical EMS Official)	VMED28
CH19	155.3475	156.7	EMS Tactical 1 (EMS Division/Branch/Group)	VMED29
CH20	159.4725	156.7	EMS Tactical 2 (EMS Division/Branch/Group)	VTAC14
CH21	155.160	156.7	Search and Rescue (SAR) Ground Operations	SARNFM

Portable 16 Channel Layout

STATEWIDE INTEROPERABILITY BANK/ZONE 5 – 16 Channels				
	Rx/Tx FREQ	<u>Tx/Rx</u> <u>CTCSS Tone</u>	Primary/Intended Use	Common Name
CH1	151.1375	156.7	Incident/Unified Command Net (Alternate/Spare)	VTAC11
CH2			NOT USED	
CH3	155.475	156.7/CSQ	State Radio NCS and Incident/Unified Command Net	VLAW31
CH4	158.7375	156.7	Operations Section Chief Net	VTAC13
CH5	155.7525	156.7	Staging Area Manager Net	VCALL10
CH6	155.370	146.2/CSQ	Law Command (Lead Tactical Law Enforcement Official)	LAWCMD
CH7	155.430	192.8	Law Tactical 1 (Law Division/Branch/Group)	LAWTAC1
CH8	155.505	192.8	Law Tactical 2 (Law Division/Branch/Group)	LAWTAC2
CH9	154.295	156.7/CSQ	Fire Command (Lead Tactical Fire Official)	VFIRE23
CH10	154.2725	156.7	Fire Tactical 1 (Fire Division/Branch/Group)	VFIRE24
CH11	154.2875	156.7	Fire Tactical 2 (Fire Division/Branch/Group)	VFIRE25
CH12	154.3025	156.7	Fire Tactical 3 (HazMat)	VFIRE26
CH13	155.340	156.7/CSQ	EMS Command (Lead Tactical EMS Official)	VMED28
CH14	155.3475	156.7	EMS Tactical 1 (EMS Division/Branch/Group)	VMED29
CH15	159.4725	156.7	EMS Tactical 2 (EMS Division/Branch/Group)	VTAC14
CH16	155.160	156.7	Search and Rescue (SAR) Ground Operations	SARNFM



ICS Form 205

INCIDENT RADIO COMMUNICATIONS PLAN			Incident Name FEMA-ND Flooding			Date/Time Prepared 3/08/2011 1800 CST			Operational Period Date/Time		
Ch #	Function	Channel Name/Trunked Radio System	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks		
1	Air-Ground	VTAC11	SAR Air-Ground	151.1375 W	156.7	151.1375 W	156.7	A	SAR Air-Ground (State Plan Ch 1)		
2	Air-Ground	VLAW31	SAR Air-Ground	155.4750 W	CSQ	155.4750 W	None	A	SAR Air-Ground (State Plan Ch 3)		
3	Air-Ground	MARINE22A	SAR Air-Ground	157.1000 W	CSQ	157.1000 W	None	A	Ground/Water to CG Helicopters		
4	Tactical	VTAC13	SAR Local	158.7375 W	156.7	158.7375 W	156.7	A	SAR Tactical (State Plan Ch 4)		
5	Tactical	VCALL10	SAR Local	155.7525 W	156.7	155.7525 W	156.7	A	SAR Tactical (State Plan Ch 5)		
6	Tactical	MARINE06	SAR Local	156.3000 W	CSQ	156.3000 W	None	A	SAR Tactical		
7	Tactical	IR1 RPTR	TBD	170.0125 N	CSQ	165.2500 N	None	A	IR1 MERS Rptr (as needed)		
8	Tactical	IR6 DIRECT IR1	TBD	170.0125 N	CSQ	170.0125 N	None	A	IR1 MERS Rptr Direct (as needed)		
9	Tactical	NC1 RPTR	TBD	169.5375 N	CSQ	164.7125 N	None	A	NC1 MERS Rptr (as needed)		
10	Tactical	IR5 DIRECT NC1	TBD	169.5375 N	CSQ	169.5375	None	A	NC1 MERS Rptr Direct (as needed)		
11	Tactical	IR3-RPTR	TBD	170.6875 N	CSQ	166.575 N	167.9	A	IR3 MERS Rptr (as needed)		
12	Tactical	IR8-DIRECT IR3	TBD	170.6875 N	CSQ	170.6875 N	167.9	A	IR3 MERS Rptr Direct (as needed)		
13	Tactical	VMED28W	EMS	155.3400 W	156.7	155.3400 W	156.7	A	EMS Tactical (State Plan Ch 13)		
14	Tactical	JAMESTOWN PD	Jamestown PD	155.5500 W	CSQ	156.0900 W	192.8	A	Jamestown Police Department		
15	Tactical	CCTAC1	SAR Cass County	151.3325 N	179.9	159.0975 N	192.8	A	Red River Ground SAR Dispatch		
16	Emergency	MARINE16	Distress	156.8000 W	CSQ	156.8000 W	None	A	Distress Hailing USCG Helo		
	Air	AIR PRIMARY	Air to Air	173.0375 N	CSQ	173.0375 N	None	FM	Primary Air to Air Info only		
	Air	AIR SECONDARY	Air to Air	134.1000 AM	CSQ	134.1000 AM	None	AM	Secondary Air to Air Info only		
	Air	AIR TERTIARY	Air to Air	282.8000 AM	CSQ	282.8000 AM	None	AM	Tertiary Air to Air (UHF) Info only		
Prepared By (Communications Unit) Mike Tuominen NIFC/NIICD, Bismarck, ND 208-863-4141				Incident Location Statewide State: ND Latitude: 46°48'48"N Longitude: 100°46'44"W (Center of Ops A							

"N" or a "W" indicates whether the frequency is Narrow or Wide band. "State Plan Ch #" refers to State Group 5, 16 Channel Plan designator.

Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25) or "M" indicating mixed mode.

All channels are shown as if programmed in a control station, mobile or portable radio. Non-repeated base stations must be programmed with the Rx and Tx reversed.

Repeaters have frequencies reversed from the mobile frequencies shown above.

* FCC Special Temporary Authority (STA) needed statewide ** State/FEMA MOU required by FCC for federal use of state frequencies.

Note: Air to Air Channels are for information only

IC:

Next Steps

- *Reprogramming to Narrow Banding requirements*
- *User Guide publication and distribution*

Radio Display with Instructions

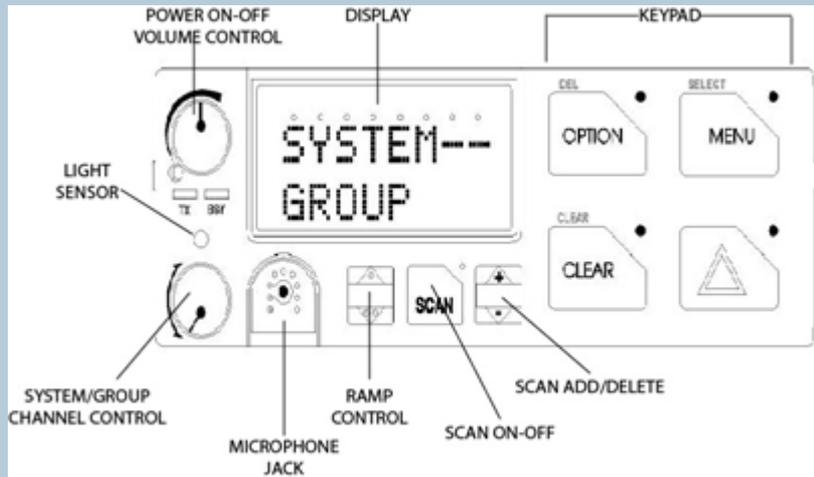


Figure D-1 M7100P Series Mobile Radio

Zone/Group/Channel Selection

Several methods, some of which depend on programming, can be used to select a new group or channel. These methods assume starting from the normal receive display.

METHOD 1: If group selection is programmed to the SYSTEM/GROUP/CHANNEL knob, select a group by turning the SYSTEM/GROUP/CHANNEL knob to the desired group. The display registers the new group name on line 2. If the wrap option is OFF and the knob is moved to a position greater than the number of programmed groups, the highest programmed group will remain selected.

METHOD 2: If group selection is programmed as the primary function of the RAMP controls,  and , select a group by pressing  or , to scroll through the group list. The display registers the new group name on line 2.

METHOD 3: Press  to enter the group select mode. Pressing the RAMP controls will now scroll through different groups.

ICS 205

A.1 ICS 205

INCIDENT RADIO COMMUNICATIONS PLAN		1. Incident Name			2. Date / Time Prepared		3. Date / Time Prepared		
4. Basic Radio Channel Utilization									
Channel #	Function	Channel Name / Trunked Radio System Talk Group	Assignment	Rx Freq N or W	Rx Tone / NAC	Tx Freq N or W	Tx Tone / NAC	Mode	Remarks
1									
2									
3									
4									
5									
6									
5. Prepared by (Communications Unit)					Incident Location		Lat/Long		
					County/State				

The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (Project 25)

Prowords Definitions

Appendix A Procedural Words (Prowords) and Phrases

Prowords are pronounceable words or phrases which have an assigned meaning for the purpose of brevity during radio message transmissions. Using Prowords ensures brevity and clarity in sending the radio message. While it is not practical to set down precise phraseology for all radio procedures, slang expressions such as "OK", "Ten-Four", "REPEAT", "BREAKER BREAKER", "COME IN PLEASE", etc. should not be used. The following table lists the "Prowords" that can be used to clarify radio communication.

Plain Language	Meaning or Usage
Acknowledge	Let me know that you have received and understood this message.
Affirmative	Yes or permission granted
At Scene	Used when units arrive at incident scene.
Break	Indicate a separation between portions of a message. More to follow.
Call _____ by Phone	Requesting receiver to contact an individual by phone.
Can Handle	Confirms that adequate units/resources are on scene.
Copy or Copies	Acknowledges message received. Unit radio identifier must also be used. Example: Tioga Ambulance copies.
Disregard Last Message	Forget last transmission – irrelevant.

Informational Websites

Appendix A Web Site Links

American Radio Relay League (ARRL): www.arrl.org
APCO International: www.apcointl.org
CASM: <https://franz.spawar.navy.mil>
DHS OEC: www.dhs.gov/xabout/structure/gc_1189774174005.shtm
EMAC: www.emacweb.org
FCC Enforcement Bureau: www.fcc.gov/eb
FCC Public Safety & Homeland Security Bureau: www.fcc.gov/pshs
FCC Special Temporary Authority (STA):
www.fcc.gov/pshs/services/sta.html
FCC ULS: wireless.fcc.gov/uls
FEMA: www.fema.gov
Government Emergency Telecommunications Service (GETS):
gets.ncs.gov
Homeland Security Information Network: www.hsin.gov
Lessons Learned Information Sharing: www.llis.gov
National Emergency Communications Plan:
http://www.dhs.gov/xlibrary/assets/national_emergency_communications_plan.pdf
National Interagency Fire Center (NIFC): www.nifc.gov
National Interagency Incident Communications:
www.fs.fed.us/fire/niicd
National Interoperability Information Exchange (NIIX): www.niix.org
National Regional Planning Council (NRPC) www.nrpc.us
National Response Framework Resource Center
<http://www.fema.gov/emergency/nrf/>
National Telecommunications & Information Admin (NTIA):
<http://www.ntia.doc.gov>
National Wildfire Coordinating Group (NWCG): www.nwcg.gov
NIFOG: www.safecomprogram.gov/SAFECOM/nifog
NIMS Information: www.fema.gov/emergency/nims
NPSTC: www.npstc.org
Radio Reference: www.radioreference.com
SAFECOM: www.safecomprogram.gov
Wildland Fire Communications: www.fireradios.net

Narrow Banding



ND Department of Emergency Services

*Ensuring a safe and secure
homeland for all North Dakotans*

Regional Meetings

Monday, January 23:

Bismarck:

ND Game & Fish Auditorium - 100 N. Bismarck Expressway – 9:00-10:30 a.m.

Dickinson:

Dickinson Public Library - 139 3rd St. W - 1:30-3:00 p.m. MST

Wednesday, January 25:

Minot:

Ward County Courthouse Ex-serviceman's Room - 315 3rd Street SE - 9:00-10:30 a.m.

Williston:

Williams County Law Enforcement Center - Emergency Operation Center - 2nd Floor
223 E Broadway - 3:00-4:30 p.m.

Tuesday, January 31:

Jamestown:

Jamestown Civic Center Exchequer Room - 212 3rd Ave NE – 9:00-10:30 a.m.

Fargo:

Fargo Public Safety Building - 4630 15 Avenue N – 2:00-3:30 p.m.

Wednesday, February 1:

Grand Forks:

Grand Forks Police Dept. Main Floor Media Room - 122 S 5th St - 8:30-10:00 a.m.

Devils Lake:

Ramsey County Courthouse Basement - 524 4th Ave. NE - 2:00-3:30 p.m.

Narrow banding Basics

- Who is required to narrowband?
 - All Public Safety and Industrial/Business licensees in the 150-174 MHz (VHF) and 421-512 MHz (UHF) bands
 - Many public safety radio systems in rural communities operate in these bands
- What is required?
 - **By January 1, 2013**, licensees must migrate their systems from 25 kHz (wideband) to 12.5 kHz (narrowband) channel bandwidth or a technology that achieves equivalent efficiency

Benefits of Narrow banding

- Narrow banding ensures more efficient use of the spectrum and greater spectrum access for public safety and non-public safety users
- Narrow banding will relieve spectrum congestion and result in increased channel availability for public safety systems
- Narrow banding provides an opportunity to upgrade radio systems and improve interoperability

Narrow banding Deadline

- All VHF/UHF licensees must complete narrow banding to 12.5 kHz by **January 1, 2013**
 - FCC will also no longer allow manufacture or importation of equipment that includes a 25 kHz mode
- Interim narrow banding requirements took effect on January 1, 2011:
 - 12.5 kHz operation required for all new VHF/UHF systems or expansion of existing systems
 - FCC will not certify new equipment that includes a 25 KHz mode

Why Meeting the Deadline Is Important

- After **January 1, 2013**, FCC interference rules will not protect non-compliant wideband systems from harmful interference
- Systems that fail to narrowband by the deadline could create interference or interoperability problems for systems that have narrow banded
- Wideband equipment will not be available after January 1, 2013

Progress to Date

DATE	Total Licenses w/WB Only	Total Licenses in Transition	Total Licenses w/NB Only	Total Licenses
Jul-10	78815	14573	15891	109279
	72.1%	13.3%	14.5%	
May-11	68170	23420	17700	109290
	62.4%	21.4%	16.2%	
Aug-11	63020	27484	18556	109060
	57.8%	25.2%	17.0%	
Nov-11	55435	33195	20033	108663
	51.0%	30.5%	18.4%	

Requests for Waiver

- The January 1, 2013 deadline will not be extended
 - Any licensee requiring additional time must request a waiver of the deadline
- July 2011 Waiver Guidance Public Notice (DA 11-1189)
 - Waiver requests must be well-documented to meet the FCC's waiver standard and will not be routinely granted
 - Licensees should ask for only as much time as necessary to achieve compliance by a date certain in a timely fashion
 - Licensees should support waiver requests with information on system size, complexity, progress to date, proposed schedule, and funding sources
 - Regionally coordinated requests encouraged
- Licensees should file waiver requests before the end of 2011; we encourage informal contact with the Bureau prior to any filing

Potential Consequences

- Licensees operating in wideband mode after January 1, 2013 without a waiver will be in violation of the Commission's rules.
- The Enforcement Bureau's Spectrum Enforcement Division, in conjunction with the Regional and Field Offices, would investigate wideband interference complaints.

Potential Consequences

- If a violation is found to have occurred, potential sanctions include
 - Admonishments
 - License revocation, and/or
 - Monetary forfeitures
 - Up to \$16,000 for each such violation or each day of a continuing violation
 - Up to \$112,500 for any single act or failure to act.

Next Steps

Prior to January 1, 2013

- New license requirements:
 - Modify FCC license to include analog narrow banding or digital emissions.
- Reprogramming radios (coordinated effort)
 - State Radio channels 1 and 2 will change to new digital **(transmit on channel 2 will not be authorized for base stations)**
 - State Radio channel 3,4, and 5 will be analog narrow banded.
 - Regional approach to programming to maintain interoperability



**Federal Communications Commission
Public Safety and Homeland Security Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: STATE OF NORTH DAKOTA, STATE RADIO COMMUNIATIONS

Call Sign
↓

ATTN: MIKE LYNK
STATE OF NORTH DAKOTA, STATE RADIO COMMUNIATI
FRAINE BARRACKS ROAD, BLDG. #35
PO BOX 5511
BISMARCK, ND 58505

Call Sign KNCS603	File Number 0004656006
Radio Service PW - Public Safety Pool, Conventional	
Regulatory Status PMRS	
Frequency Coordination Number	

Dates
↓

FCC Registration Number (FRN): 0002474708

Grant Date 11-21-2001	Effective Date 06-13-2011	Expiration Date 02-02-2012	Print Date 06-14-2011
---------------------------------	-------------------------------------	--------------------------------------	---------------------------------

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

Loc. 1 Address: 1 5/8 MI S & 3 5/8 MI E
City: EPPING County: WILLIAMS State: ND
Lat (NAD83): 48-07-40.1 N Long (NAD83): 103-14-51.7 W ASR No.: Ground Elev: 744.0

Loc. No.	Ant. No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
1	1	000154.9650000	FB	1		11K2F3E 20K0F3E	35.000		18.0		

Control Points
Control Pt. No. 1 **Class Fixed Base** **Output Power** **Antenna Hight**
Address: 11 5/8 MI S & 3 5/8 MI E
City: EPPING County: State: ND Telephone Number: (701)224-3300

Waivers/Conditions:

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

Beginning January 1, 2013, this station must operate on channels with a bandwidth of 12.5 kHz or less, or with equivalent efficiency, regardless of the emission bandwidths set forth on this license. See Section 90.209(b)(5) of the Commission's Rules. Note, however, that the narrowbanding requirement does not apply to specific channels designated in Rule 90.20 or 90.35 for paging only.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.



Federal Communications Commission
Public Safety and Homeland Security Bureau

RADIO STATION AUTHORIZATION

LICENSEE: STATE OF NORTH DAKOTA, STATE RADIO COMMUNIATION

Call Sign
↓

ATTN: MIKE LYNK
 STATE OF NORTH DAKOTA, STATE RADIO COMMUNIATI
 FRAINE BARRACKS ROAD, BLDG. #35
 PO BOX 5511
 BISMARCK, ND 58505

Call Sign KO5210	File Number 0004701030
Radio Service PW - Public Safety Pool, Conventional	
Regulatory Status PMRS	
Frequency Coordination Number	

Dates
↓

FCC Registration Number (FRN): 0002474708

Grant Date 04-03-2004	Effective Date 07-27-2011	Expiration Date 06-22-2014	Print Date 07-28-2011
---------------------------------	-------------------------------------	--------------------------------------	---------------------------------

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

Loc. 1 Area of Operation
 Statewide: ND

Antenn		Frequencies	Units			Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
Loc. No.	Ant. No.	Frequencies (MHz)	Sta. Cls.	No. Units	No. Pagers	Emission Designator	Output Power (watts)	ERP (watts)	Ant. Ht./Tp meters	Ant. AAT meters	Construct Deadline Date
1	1	000154.68000000	MO	6000		11K2F3E 20K0F3E	110.000	110.000			
1	1	000154.69500000	MO	6000		11K2F3E 20K0F3E	110.000	110.000			
1	1	000154.77000000	MO	6000		11K2F3E 20K0F3E	110.000	110.000			
1	1	000154.86000000	MO	6000		11K2F3E 20K0F3E	110.000	110.000			
1	1	000155.43000000	MO	6000		11K2F3E 20K0F3E	110.000	110.000			
1	1	000155.47500000	MO	6000		11K2F3E 20K0F3E	110.000	110.000			

Class Mobile
↑

Power
↑

Conditions:
 Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Next Steps

Prior to January 1, 2013

- Grant funding has been allocated
 - Reprogramming or purchase of APCO project 25 (P25) equipment
 - Mobile public safety radios
 - Portable public safety radios
 - Base stations
 - Repeaters
 - Does not include pagers or paging equipment
 - Funding ends May 31, 2012 with possible extensions to July 31, 2012

Next Steps

Prior to January 1, 2013

- Equipment gaps can be filled with analog narrow banded capable radios
 - Option for school buses and public works
 - Not funded by grants
- Future FCC mandates
 - In ten (10) to fifteen (15) years mandated 6.25 MHz narrow banding (will require digital emissions)

Office of Emergency Communications

Public Safety Technical Assistance Tools

Website

http://www.publicsafetytools.info/start_index.php



[National Interoperability
Field Operations Guide
\(NIFOG\)](#)



[Response Level
Communications Tool
\(NECP Goal 2\)](#)



[Communications Asset
Survey & Mapping
\(CASM\)](#)



[Technical Assistance
Catalog & Request](#)



[Narrowband License Status Tool
\(NLST\)](#)



[Frequency Mapping Tool
\(FMT\)](#)



[Public Safety Tools
Available Training](#)



[NOTICE: HTTPS Certificate Correction Procedures](#)

← [Display Transmitter Totals](#)

Total Transmitters:

Transmitter Type:
 Fixed Mobile

Location: Search Box

State: Select State... 

Regions: Select State to Create List...

Use the Ctrl key to select / de-select more than one county

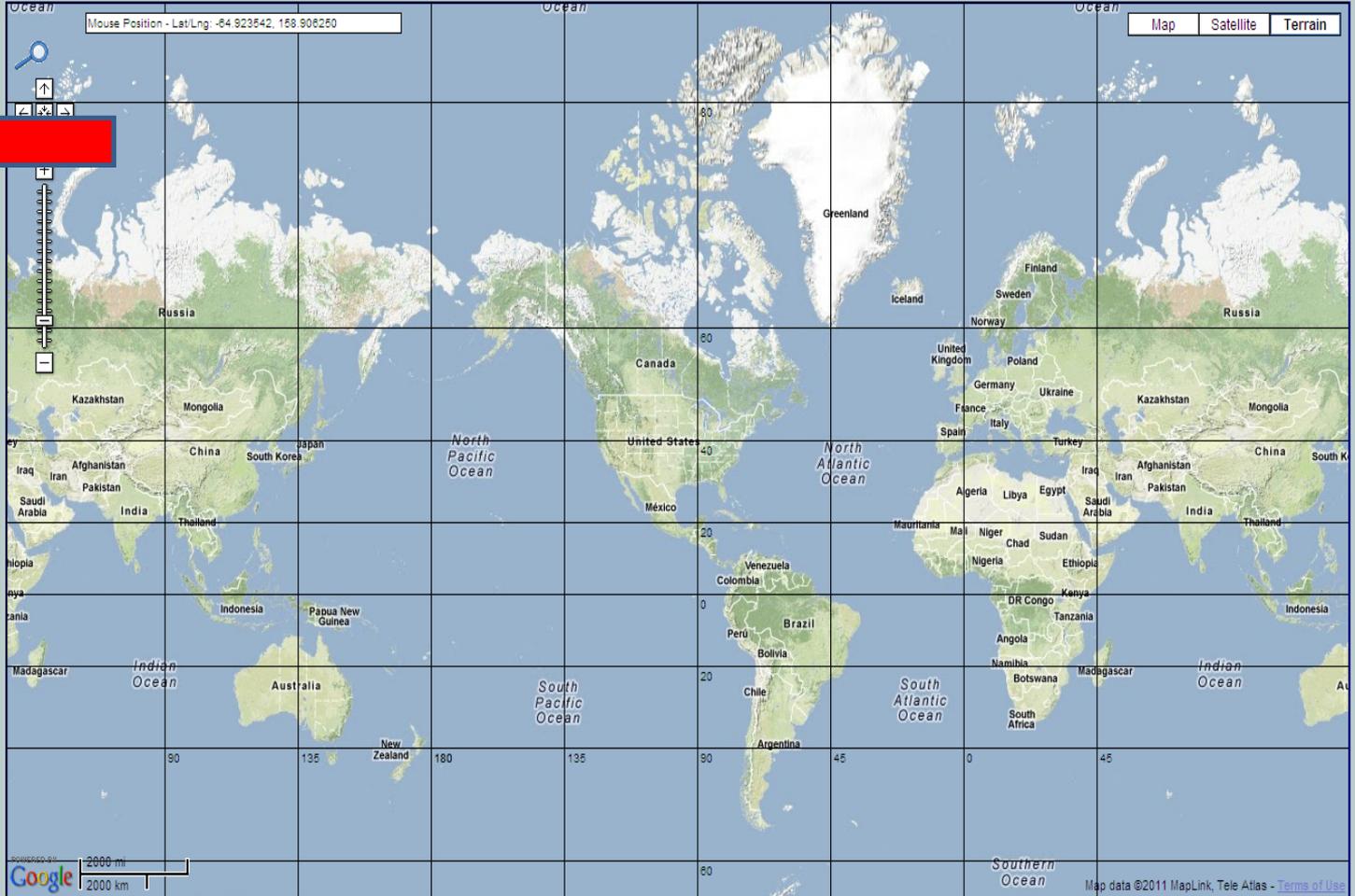
Cities: Select State to Create List...

Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs

Radio Services:
Public Safety Conventional/Trunked: (PW,YW)

Include/Exclude FRNs and/or Call Signs:
include FRN:
include Call Sign:

Date Last Updated: 01/08/12
(/ NR Private Database: 3,696,135 Frequency Records)



Total Transmitters: [Display Transmitter Totals](#)

Transmitter Type:
 Fixed Mobile

Location:

State:

Regions:
Regions:
 RGN-Northeast
 RGN-Northwest
 RGN-Southeast
 RGN-Southwest
Countries:

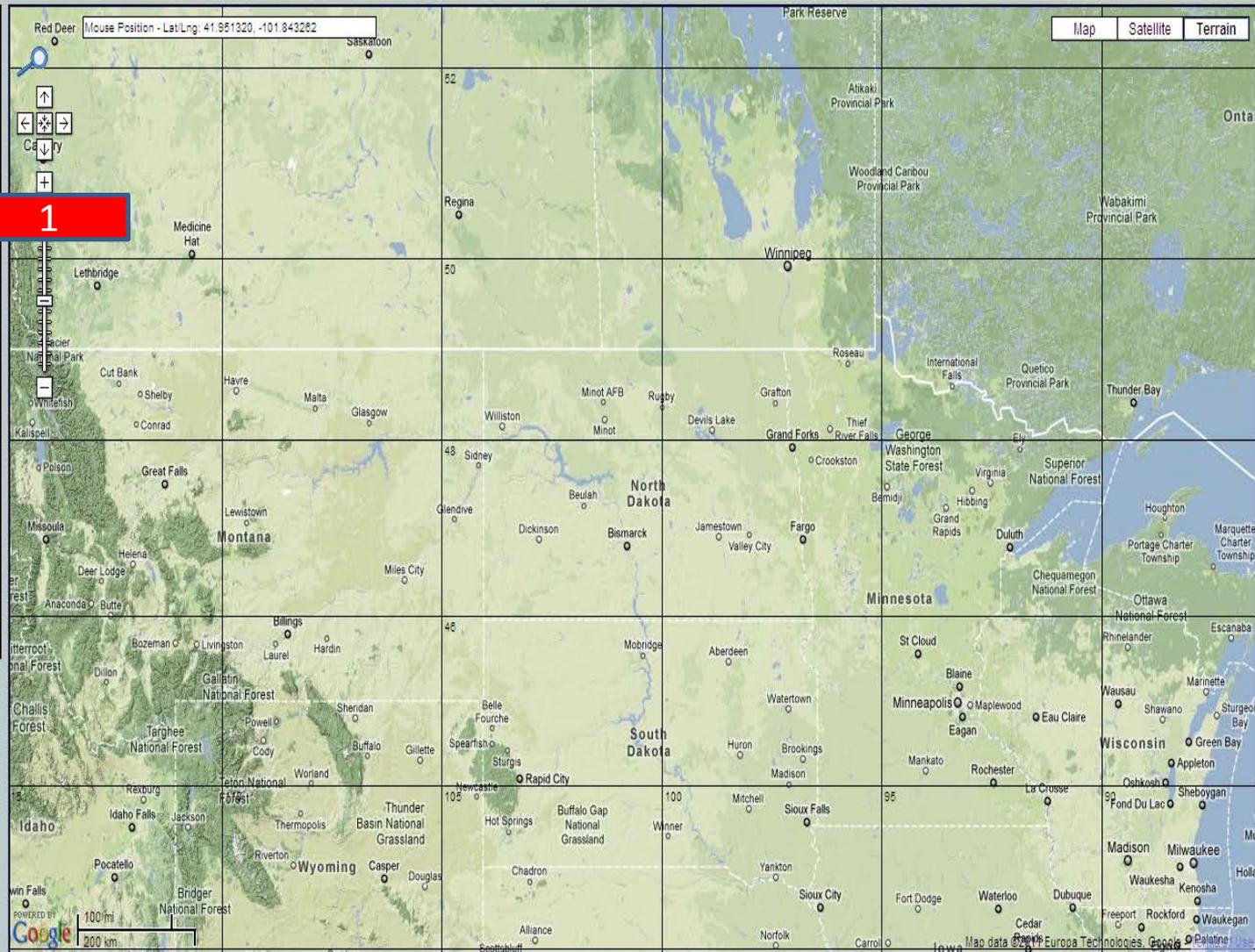
Use the Ctrl key to select / de-select more than one county
Cities:

Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs

Radio Services:

Include/Exclude FRNs and/or Call Signs:
include
include

Date Last Updated: 01/08/12
(1,135 Frequency Records)



Total Transmitters: 459 [Display Transmitter Totals](#)

Transmitter Type:
 Fixed Mobile

Location:

State: North Dakota

Regions:
 Regions:
 RGN-Northeast
 RGN-Northwest
 RGN-Southeast
 RGN-Southwest
 Counties:

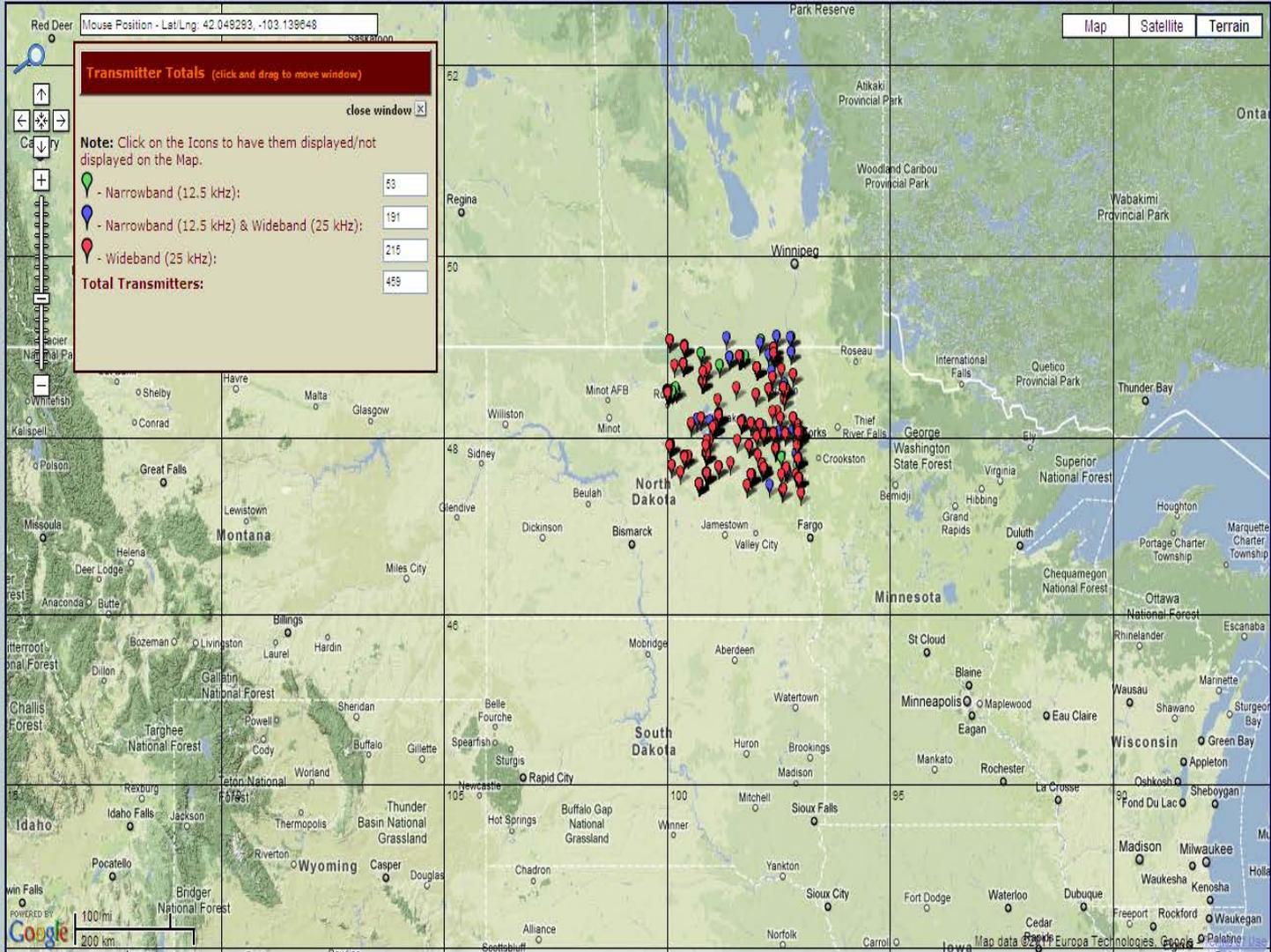
Use the Ctrl key to select / de-select more than one county
Cities:

Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs

Radio Services:

Include/Exclude FRNs and/or Call Signs:
 FRN:
 Call Sign:

Date Last Updated: 01/08/12
(/ NIF Database: 3,696,135 Frequency Records)

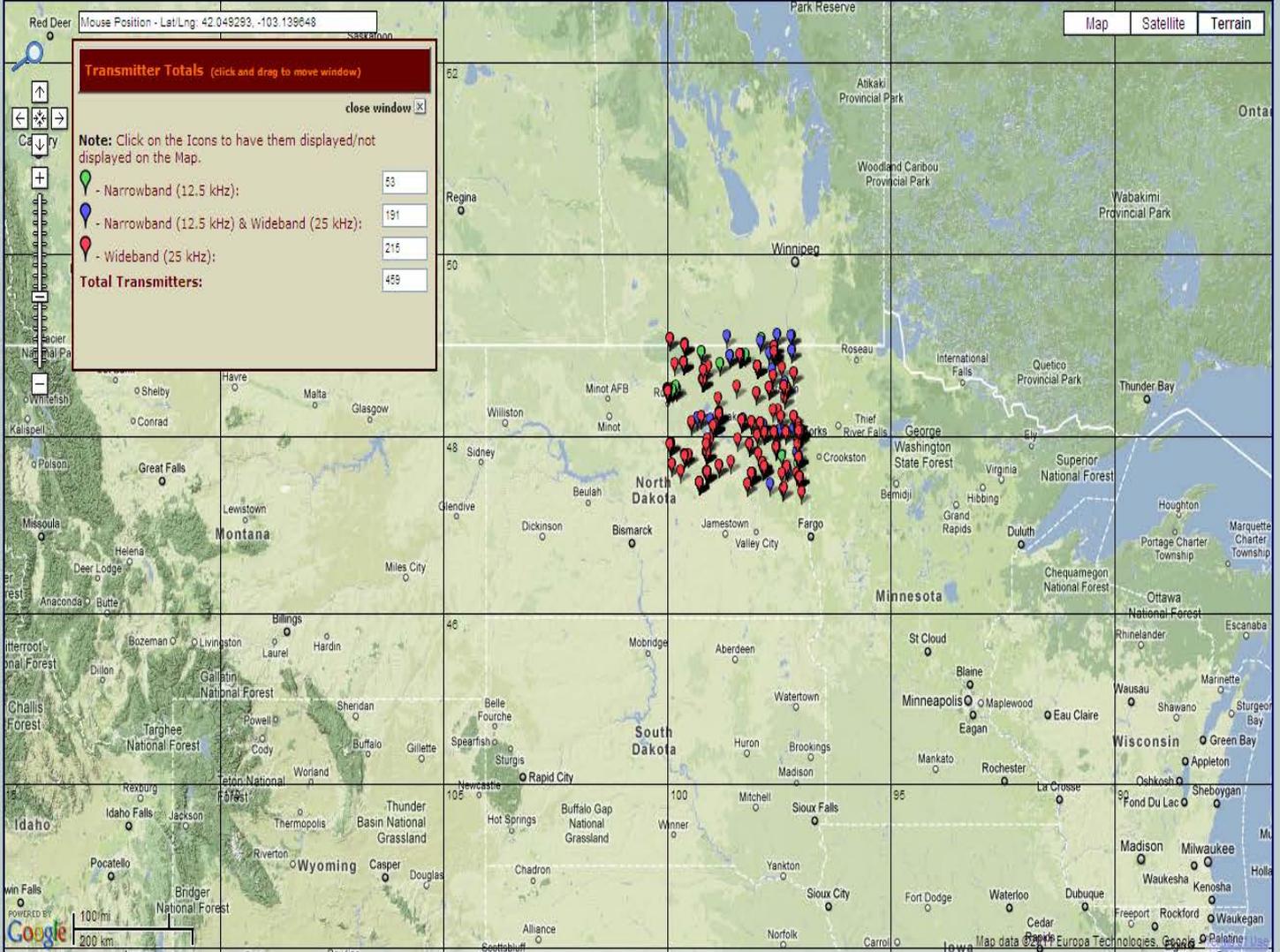


Total Transmitters: 459 [Display Transmitter Totals](#)
Transmitter Type:
 Fixed Mobile
Location:
State: North Dakota
Regions:
 Regions:
 RGN-Northeast
 RGN-Northwest
 RGN-Southeast
 RGN-Southwest
 Counties:

 Use the Ctrl key to select / de-select more than one county
Cities:
Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs
Radio Services:

Include/Exclude FRNs and/or Call Signs:
 FRN:
 Call Sign:

Date Last Updated: 01/01/2011
(/NF Database: 3,696,132)



←

Total Transmitters: [Display Transmitter Totals](#)

Transmitter Type:
 Fixed Mobile

Location:

State:

Regions:
Regions:
RGN-Northeast
RGN-Northwest
RGN-Southeast
RGN-Southwest
Countries:

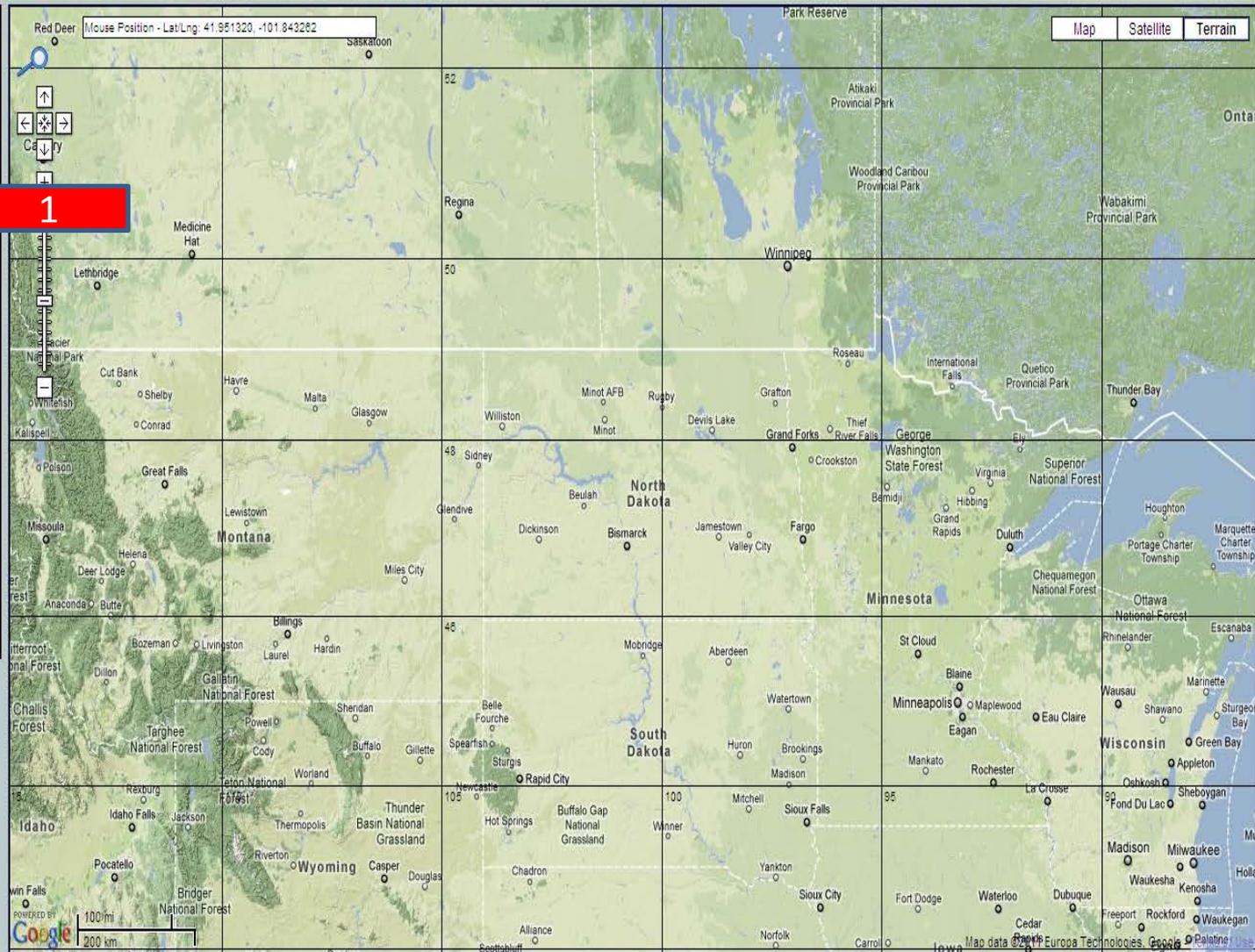
Use the Ctrl key to select / de-select more than one county
Cities:

Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs

Radio Services:

Include/Exclude FRNs and/or Call Signs:
include
include

Date Last Update: 08/12
(If NR Private Database Frequency Records)



Total Transmitters: [Display Transmitter Totals](#)

Transmitter Type:
 Fixed Mobile

Location:

State:

Regions:
Regions:
 RGN-Northeast
 RGN-Northwest
 RGN-Southeast
 RGN-Southwest
Counties:

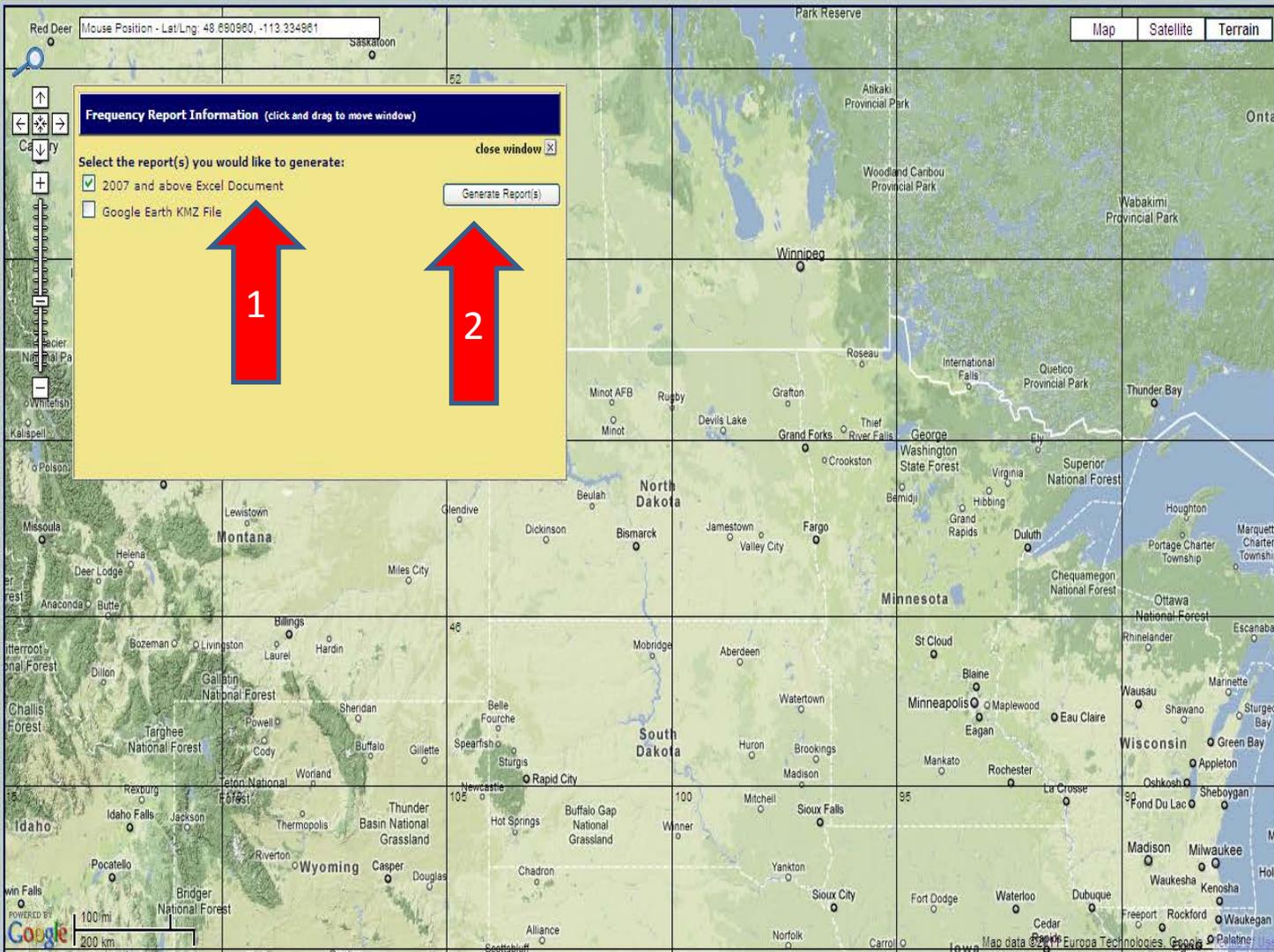
Use the Ctrl key to select / de-select more than one county.
Cities:

Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs

Radio Services:

Include/Exclude FRNs and/or Call Signs:
Include
Include

Date Last Updated: 01/08/12
(NWR Private Database: 3,896,135 Frequency Records)



Total Transmitters: [Display Transmitter Totals](#)

Transmitter Type:

Fixed Mobile

Location:

State:

Regions:
 RGN-Northeast
 RGN-Northwest
 RGN-Southeast
 RGN-Southwest
Countries:

Use the Ctrl key to select / de-select more than one county
Cities:

Frequency:
 UHF & VHF Freqs UHF Freqs VHF Freqs

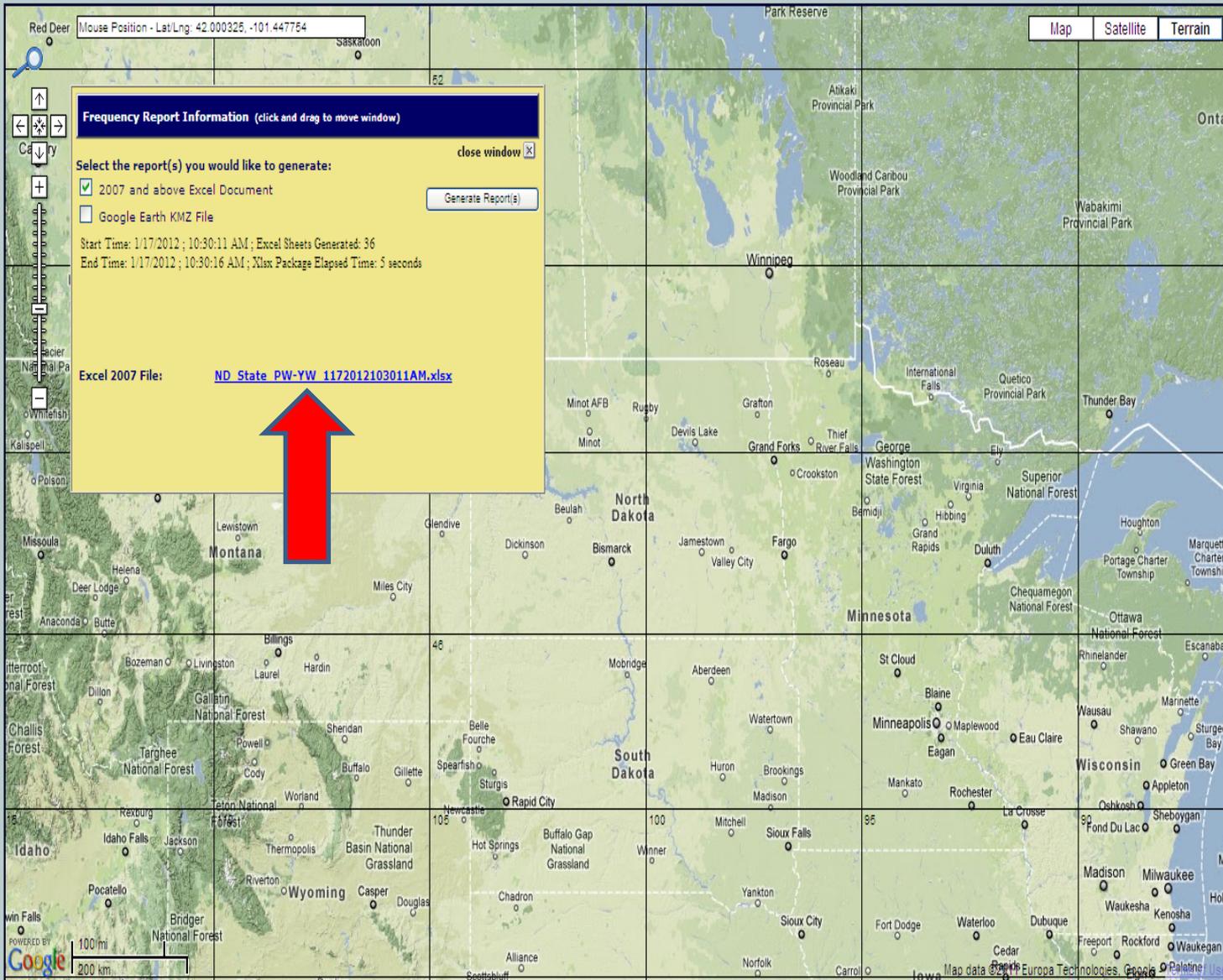
Radio Services:

Include/Exclude FRNs and/or Call Signs:

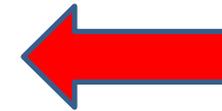
include
include

Date Last Updated: 01/15/12

(1 MR Private Database: 3,896,135 Frequency Records)



If you get a box like this you will need to click the X once or twice to get rid of it.

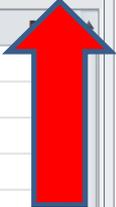


	A	B	C	D	E	F
1	Report Date:	1/17/2012 10:30:11 AM				
2	FCC Data Current As Of:	1/15/2012 1:00:00 PM				
3	Filter Settings:	Service: PW,YW; Location Type: Fixed; License Status: A; UHF & VHF				
4	Please Note:	These results are from a licensing perspective only and do not imply any type of narrowband compliance from an equipment standpoint				
5						



6	Column	Description	Notes
7	A	Region or County names contained in the search	Regions are created based on logical grouping of counties (i.e. emergency management regions). County names are as listed in the FCC database
8	B	State abbreviation contained in the search	The State Abbreviation is displayed as a distinguishing field when a search is done across multiple States via the Search Box Area Feature
9	C	Number of FRNs that contain only NB or NB/WB entries	A count of FCC Registration Numbers (FRNs) where ALL associated frequencies are licensed for narrowband use
10	D	Number of FRNs that contain at least one WB only entry	A count of of FRNs where as least one associated frequency is licensed for ONLY wideband use and thus still requires attention
11	E	Total number of FRNs	The sum of the previous two columns
12	F	Percentage of FRNs where all associated frequencies are licensed for NB use	A narrowband licensing metric from an FRN perspective
13	G	Number of Call Signs that contain only NB or NB/WB entries	A count of Call Signs where ALL associated frequencies are licensed for narrowband use
14	H	Number of Call Signs that contain at least one WB only entry	A count of Call Signs where as least one associated frequency is licensed for ONLY wideband use and thus still requires attention
15	I	Total number of Call Signs	The sum of the previous two columns
16	J	Percentage of Call Signs where all associated frequencies are licensed for NB use	A narrowband licensing metric from a Call Sign perspective
17	K	Number of transmitters that contain only NB or NB/WB entries	A count of transmitters where the associated frequency is licensed for narrowband use. One transmitter is a unique frequency licensed for a unique location.
18	L	Number of transmitters that contain only a WB entry	A count of transmitters where the associated frequency is licensed for wideband only use. One transmitter is a unique frequency licensed for a unique location.

	A	B	C	D	E
1	Report Date:	1/17/2012 10:30:11 AM			
2	FCC Data Current As Of:	1/15/2012 1:00:00 PM			
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I	Total number of Call Signs	The sum of the previous two columns
J	Percentage of Call Signs where all associated frequencies are licensed for NB use	A narrowband licensing metric from a Call Sign perspective
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M	Total number of transmitters	The sum of the previous two columns



OEC/ICTAP



1 Report Date: 1/17/2012 10:30:12 AM
 2 FCC Data Current As Of: 1/15/2012 1:00:00 PM
 3 Filter Settings: Service: PW,YW; Location Type: Fixed; License Status: A; UHF & VHF
 4 Please Note: These results are from a licensing perspective only and do not imply any type of narrowband compliance from an equipment standpoint
 5

Narrowband Licensing Status

		By FRN				By CallSign				By # of Fixed Transmitters			
REGION	STATE	# NB	# WB	Total	% NB	# NB	# WB	Total	% NB	# NB	# WB	Total	% NB
Total		37	72	109	34%	98	130	228	43%	244	215	459	53%
Northeast	ND	37	72	109	34%	98	130	228	43%	244	215	459	53%

FCC Website

- <http://wireless.fcc.gov/uls/index.htm?job=home>
- New Users Register
- Online Filing Log In to change license
- Need Federal Registration Number (FRN)
- If you don't have password then click forgot password and set one up

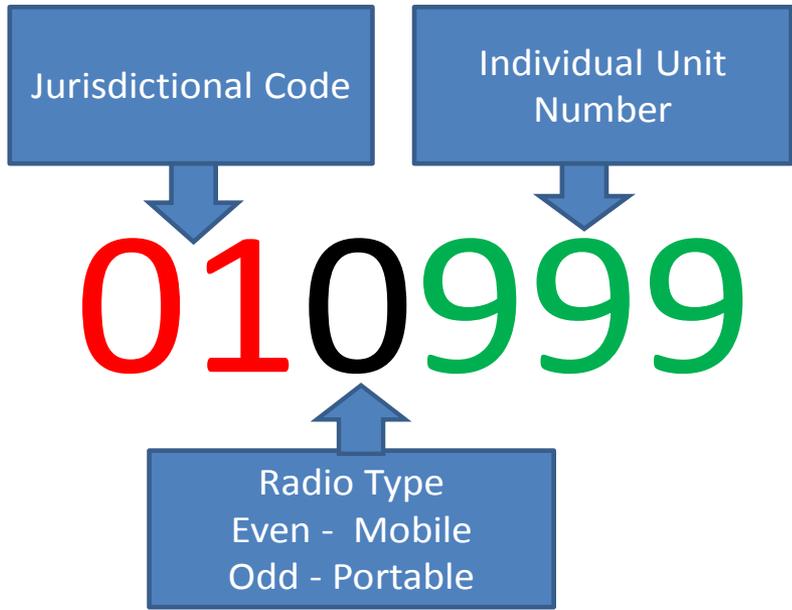
North Dakota Bank 5 Narrowbanded Program

Channel	Alpha Tag	TX Freq	TX PL	TX Bandwidth	RX Freq	RX PL	RX Bandwidth
1	BLANK						
2	BLANK						
3	VLAW31	155.475	156.7	12.5	155.475	CSQ	12.5
4	VTAC11	151.1375	156.7	12.5	151.1375	156.7	12.5
5	VTAC12	154.4525	156.7	12.5	154.4525	156.7	12.5
6	VTAC13	158.7375	156.7	12.5	158.7375	156.7	12.5
7	VCALL10	155.7525	156.7	12.5	155.7525	156.7	12.5
8	LAWCMD	155.37	146.2	12.5	155.37	CSQ	12.5
9	LAWTAC1	155.43	192.8	12.5	155.43	192.8	12.5
10	LAWTAC2	155.505	192.8	12.5	155.505	192.8	12.5
11	VLAW32	155.4825	156.7	12.5	155.4825	156.7	12.5
12	VFIRE23	154.295	156.7	12.5	154.295	CSQ	12.5
13	VFIRE24	154.2725	156.7	12.5	154.2725	156.7	12.5
14	VFIRE25	154.2875	156.7	12.5	154.2875	156.7	12.5
15	VFIRE26	154.3025	156.7	12.5	154.3025	156.7	12.5
16	VFIRE21	154.28	156.7	12.5	154.28	156.7	12.5
17	VFIRE22	154.265	156.7	12.5	154.265	156.7	12.5
18	VMED28	155.34	156.7	12.5	155.34	CSQ	12.5
19	VMED29	155.3475	156.7	12.5	155.3475	156.7	12.5
20	VTAC14	159.4725	156.7	12.5	159.4725	156.7	12.5
21	SARNFM	155.16	156.7	12.5	155.16	156.7	12.5

Note: Italic/Bold are changes to the original programming along with the Bandwidth.

North Dakota State Radio Channel Information

	State Radio Base Transmit (Mobile Receive)				Mobile Transmit			
	Frequency	NAC	CTCSS	Modulation	Frequency	NAC	CTCSS	Modulation
State Radio Channel 1	154.935 MHz	788	none	P25	151.460 MHz	788	none	P25
State Radio Channel 2	154.695 MHz	788	none	P25	159.225 MHz	788	none	P25
State Radio Channel 3	155.475 MHz	none	See Note 1	Analog	155.475 MHz	none	156.7 Hz	Analog
Note 1: Program mobile radio for carrier squelch. State Radio Channel 3 Base stations do not transmit 156.7 Hz. Follow Bank 5 chart								
Note 2: All channels are 12.5 kHz bandwidth								
Note 3: When Channel 1 or 2 is selected the radio must scan for traffic on the mobile transmit frequency for that channel.								
Note 4: Unit Numbers should be programmed into the Digital ID on the radios established by State policy and sent at initial push to talk								
Note 5: The digital modulation type is C4FM - Common Air Interface P25 (CAI)								



Questions



ND Department of Emergency Services

*Ensuring a safe and secure
homeland for all North Dakotans*