Department of Emergency Services

North Dakota Narrow Banding Workshops

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NDDES
Homeland Security
State Radio

ND Department of Emergency Services

Ensuring a safe and secure homeland for all North Dakotans.

Topics

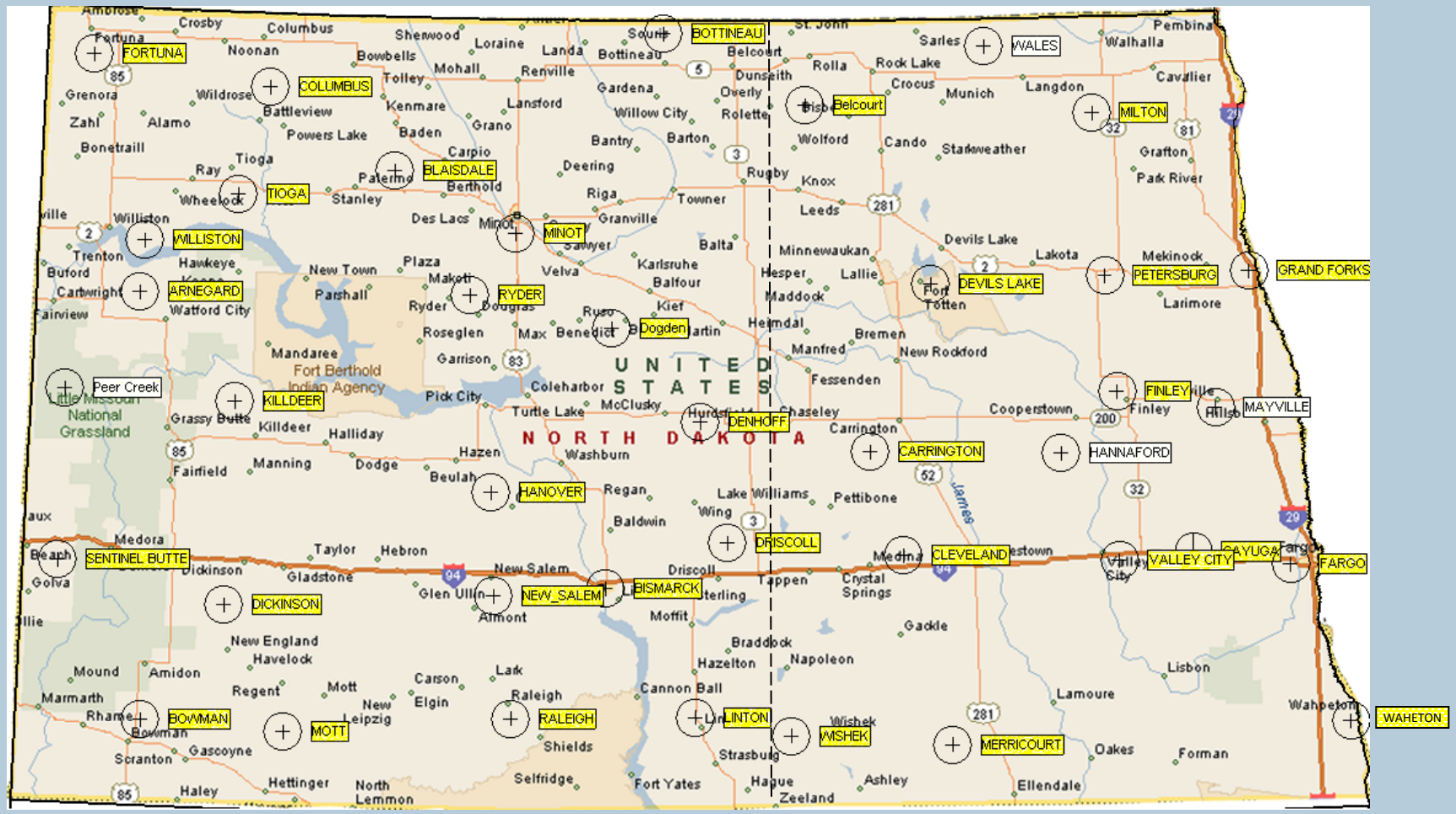
- State Radio Tower Study
- Bank 5 Interoperability Plan Deployment
- Narrow banding

State Radio Tower Gap

State Radio Tower Gaps

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

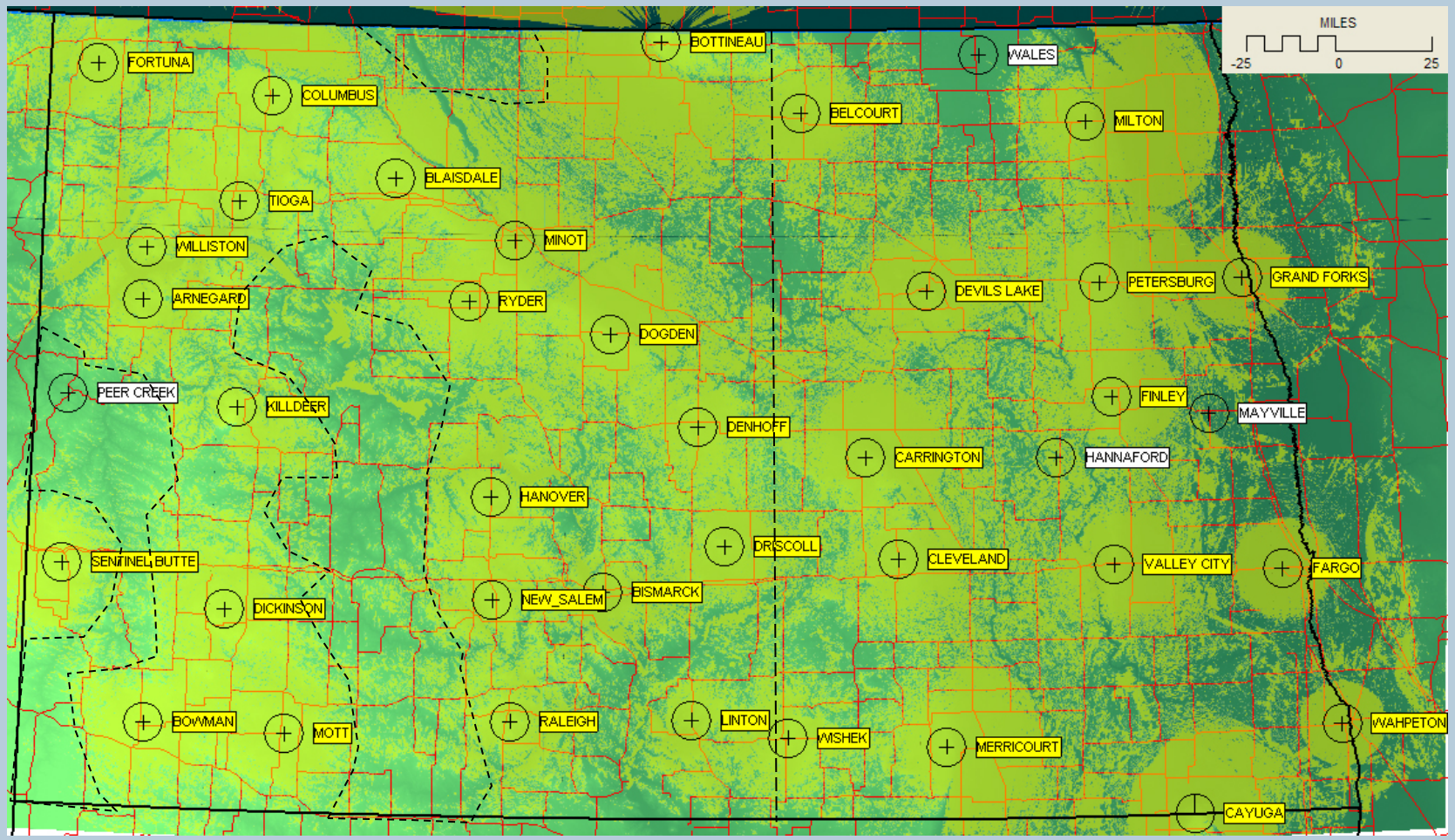
Fixed Site Locations



Statewide System & DOT sites

DOT only sites

Only Statewide Radio Sites Active



Statewide System & DOT sites

DOT only sites

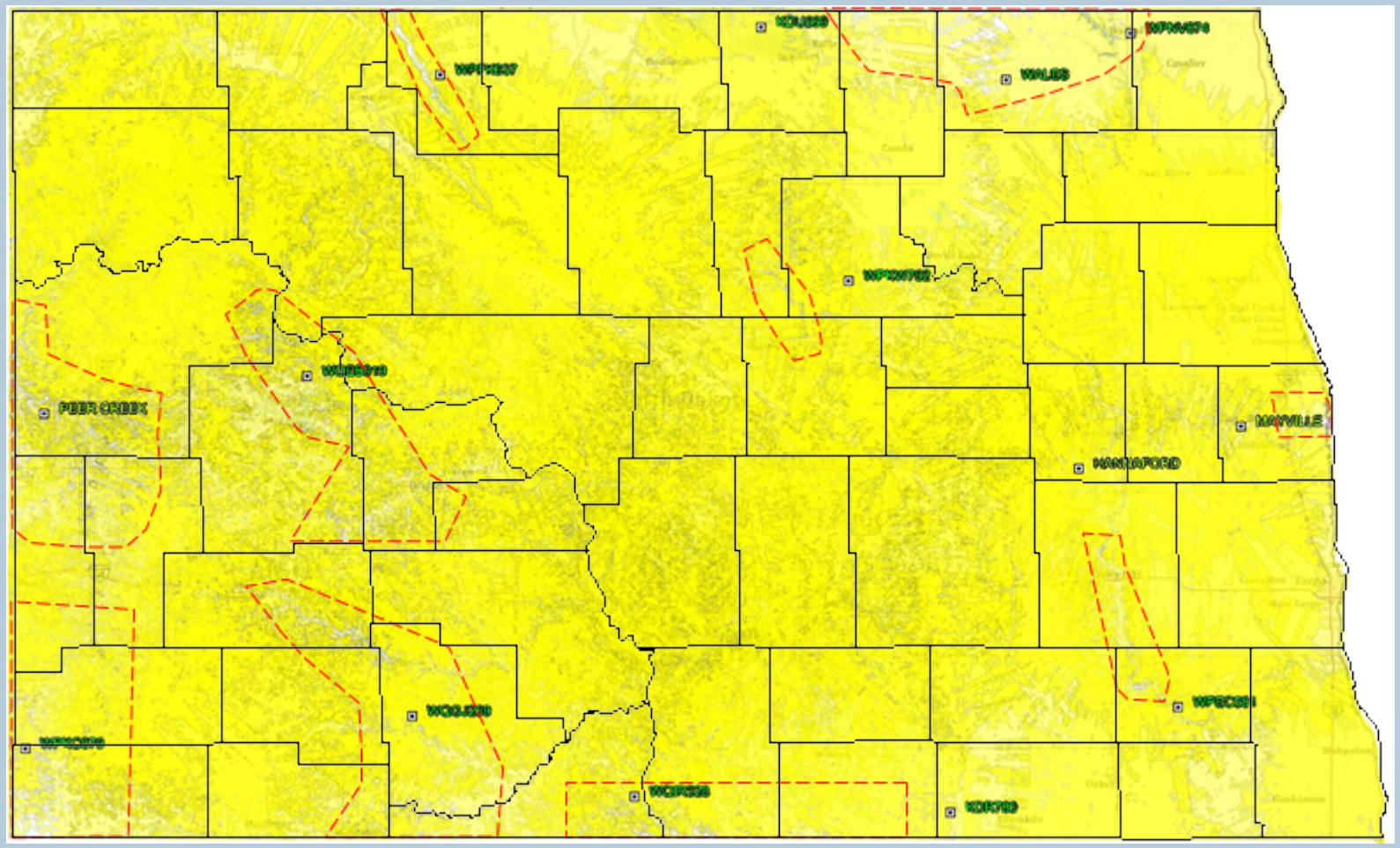
Primary gap areas

Potential New Site Locations – Mobile Coverage

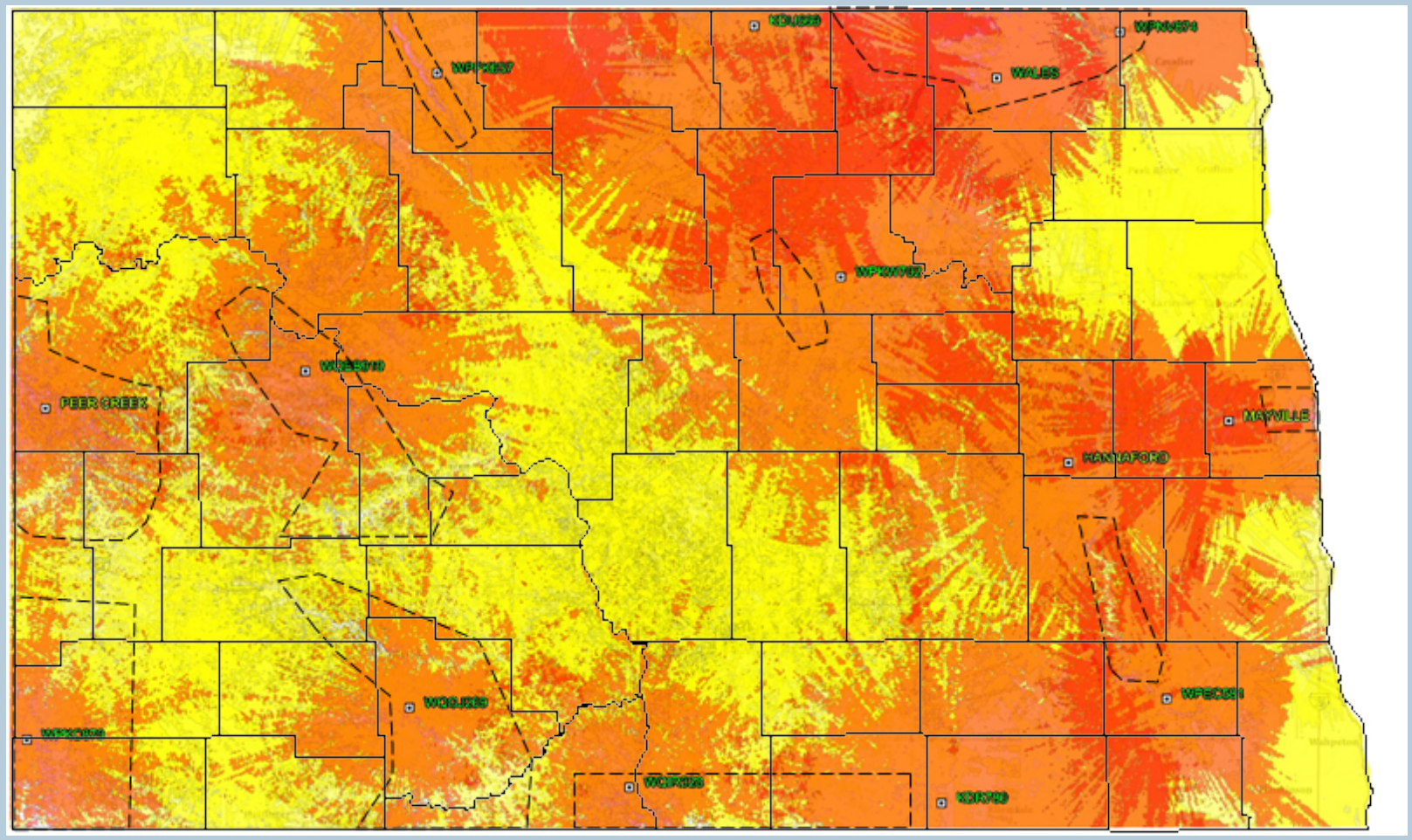
Site Name	Latitude	Longitude	County, State	Antenna Azimuth (Degrees)	Effective Radiated Power ERPd	Antenna Height (Meters / Feet)
HANNAFORD	47:19:40.0:N	98:12:35.3:W	GRIGGS, ND	6dB OMNI	100 dBW	60 / 196.9
MAYVILLE	47:29:1.9:N	97:19:28.3:W	TRAILL, ND	6dB OMNI	100 dBW	26 / 85.3
PEER CREEK	47:31:51.1:N	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.

Potential New Sites Overlaying The Communications Problem Areas



Complete Mobile Coverage with New Sites



Note: Yellow is coverage from the existing system and orange is the new site coverage. Darker colors indicate overlapping site coverage.

Future

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

Bank 5 Interoperable Plan

NDDES
Homeland Security
State Radio

ND Department of Emergency Services

Ensuring a safe and secure homeland for all North Dakotans

Mandates

- **Mobile Radios**
  - Minimum of 5 Banks
  - Interoperable Bank located in Bank 5
  - Mutual Aid Channel 3 located in every bank with conditions

- **Portable Radios**
  - Mutual Aid Channel 3 located in every bank with conditions

	BANK/ZONE 1	BANK/ZONE 2	BANK/ZONE 3	BANK/ZONE 4	BANK/ZONE 5
	CITY	COUNTY	STATE/COMMON	MULTI AGENCY	
CH 1	JAMESTOWN PD	COUNTY LGR	STATE CH 1 TX	COUNTY LGR	STATEWIDE INTEROP
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

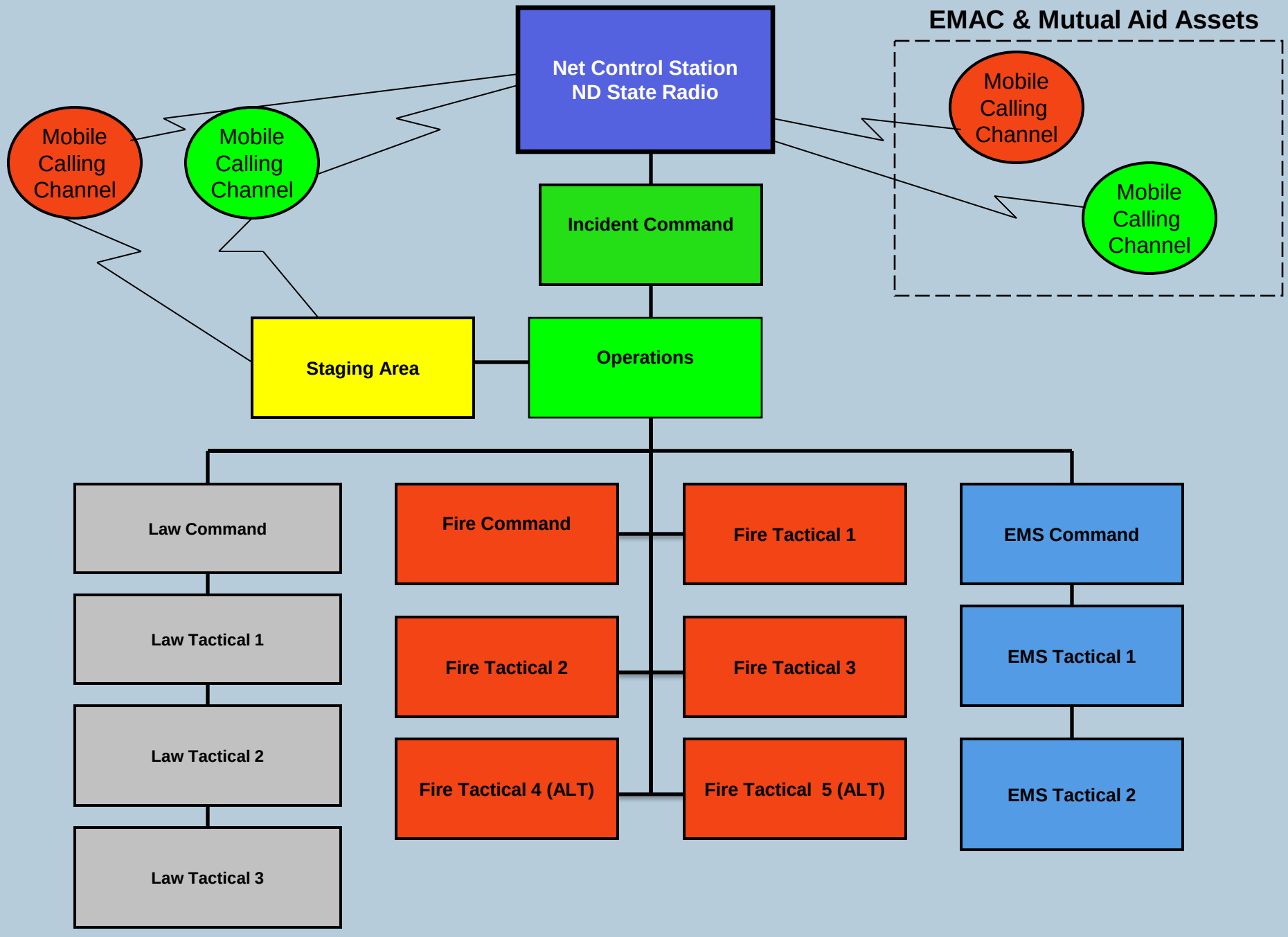
State/Common Frequencies

Statewide Interoperable Frequencies

STATEWIDE INTEROPERABILITY BANK/ZONE 5				
	Rx/Tx FREQ	**Tx/Rx CTCSS Tone**	**Primary/Intended Use**	**Common Name**
CH1			**NOT USED**	
CH2			**NOT USED**	
CH3			**State Radio NCS and Incident/Unified Command Net**	
CH4			Incident/Unified Command Net (Alternate/Spare)	
CH5			Incident/Unified Command Net (Alternate/Spare)	
CH6			Operations Section Chief Net	
CH7			Staging Area Manager Net	
CH8			Law Command (Lead Tactical Law Enforcement Official)	
CH9			Law Tactical 1 (Law Division/Branch/Group)	
CH10			Law Tactical 2 (Law Division/Branch/Group)	
CH11			Law Tactical 3 (Alternate/Spare)	
CH12			Fire Command (Lead Tactical Fire Official)	
CH13			Fire Tactical 1 (Fire Division/Branch/Group)	
CH14			Fire Tactical 2 (Fire Division/Branch/Group)	
CH15			Fire Tactical 3 (HazMat)	
CH16			Fire Tactical 4 (Alternate/Spare)	
CH17			Fire Tactical 5 (Alternate/Spare)	
CH18			EMS Command (Lead Tactical EMS Official)	
CH19			EMS Tactical 1 (EMS Division/Branch/Group)	
CH20			EMS Tactical 2 (EMS Division/Branch/Group)	
CH21			Search and Rescue (SAR) Ground Operations	

Portable 16 Channel Layout

STATEWIDE INTEROPERABILITY BANK/ZONE 5 – 16 Channels				
	Rx/Tx FREQ	**Tx/Rx CTCSS Tone**	**Primary/Intended Use**	**Common Name**
CH1			Incident/Unified Command Net (Alternate/Spare)	
CH2			**NOT USED**	
CH3			**State Radio NCS and Incident/Unified Command Net**	
CH4			Operations Section Chief Net	
CH5			Staging Area Manager Net	
CH6			Law Command (Lead Tactical Law Enforcement Official)	
CH7			Law Tactical 1 (Law Division/Branch/Group)	
CH8			Law Tactical 2 (Law Division/Branch/Group)	
CH9			Fire Command (Lead Tactical Fire Official)	
CH10			Fire Tactical 1 (Fire Division/Branch/Group)	
CH11			Fire Tactical 2 (Fire Division/Branch/Group)	
CH12			Fire Tactical 3 (HazMat)	
CH13			EMS Command (Lead Tactical EMS Official)	
CH14			EMS Tactical 1 (EMS Division/Branch/Group)	
CH15			EMS Tactical 2 (EMS Division/Branch/Group)	
CH16			Search and Rescue (SAR) Ground Operations	


EMAC & Mutual Aid Assets
Net Control Station
ND State Radio
Mobile Calling Channel
Mobile Calling Channel
Mobile Calling Channel
Mobile Calling Channel
Incident Command
Staging Area
Operations
Law Command
Law Tactical 1
Law Tactical 2
Law Tactical 3
Fire Command
Fire Tactical 1
Fire Tactical 2
Fire Tactical 3
Fire Tactical 4 (ALT)
Fire Tactical 5 (ALT)
EMS Command
EMS Tactical 1
EMS Tactical 2

ICS Form 205

Next Steps

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

Radio Display with Instructions

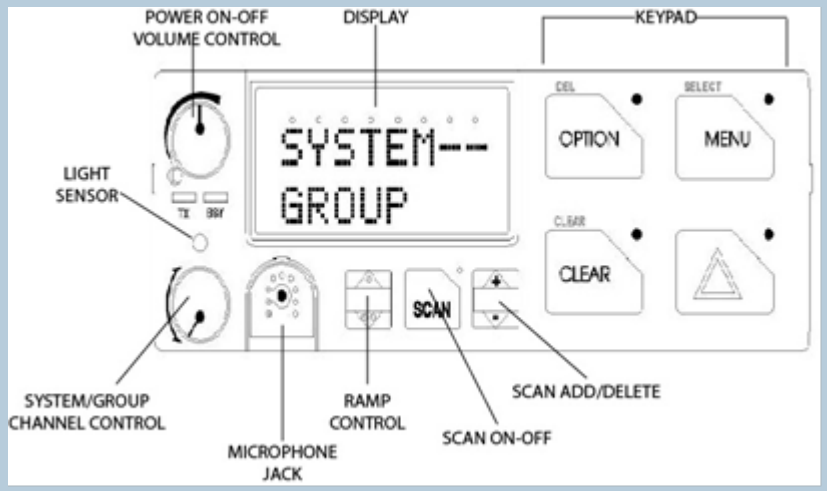


Figure D-1 M7100IP Series Mobile Radio

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 GRP 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

Ch #	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 County/State Lat/Long

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

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

Call Sign

LICENSEE: STATE OF NORTH DAKOTA, STATE RADIO COMMUNIATIONS

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

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

FCC Registration Number (FRN): 0002474708

Dates

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

Frequencies Units

Antenna

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	000154.96500000	FB	1		11K2F3E 20K0F3E	35.000		18.0		

Class Fixed Base — Output Power — Antenna Hight

Control Points
Control Pt. No. 1
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

Call Sign

LICENSEE: STATE OF NORTH DAKOTA, STATE RADIO COMMUNIATION

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

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

FCC Registration Number (FRN): 0002474708

Dates

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

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

Loc. 1 **Area of Operation**
Statewide: ND

Antenn

Frequencies

Units

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

OEC/ICTAP

Public Safety Technical Assistance Tools

Welcome to the Public Safety Technical Assistance Tools Website

Home | Frequency Mapping Tool | Narrowband License Status | NIFOG | PS Tools Training | FCC Source Data | Tech Tools Help

National Interoperability Field Operations Guide (NIFOG)

Response Level Communications Tool (NECP Goal 2)

Communications Asset Survey & Mapping (CASM)

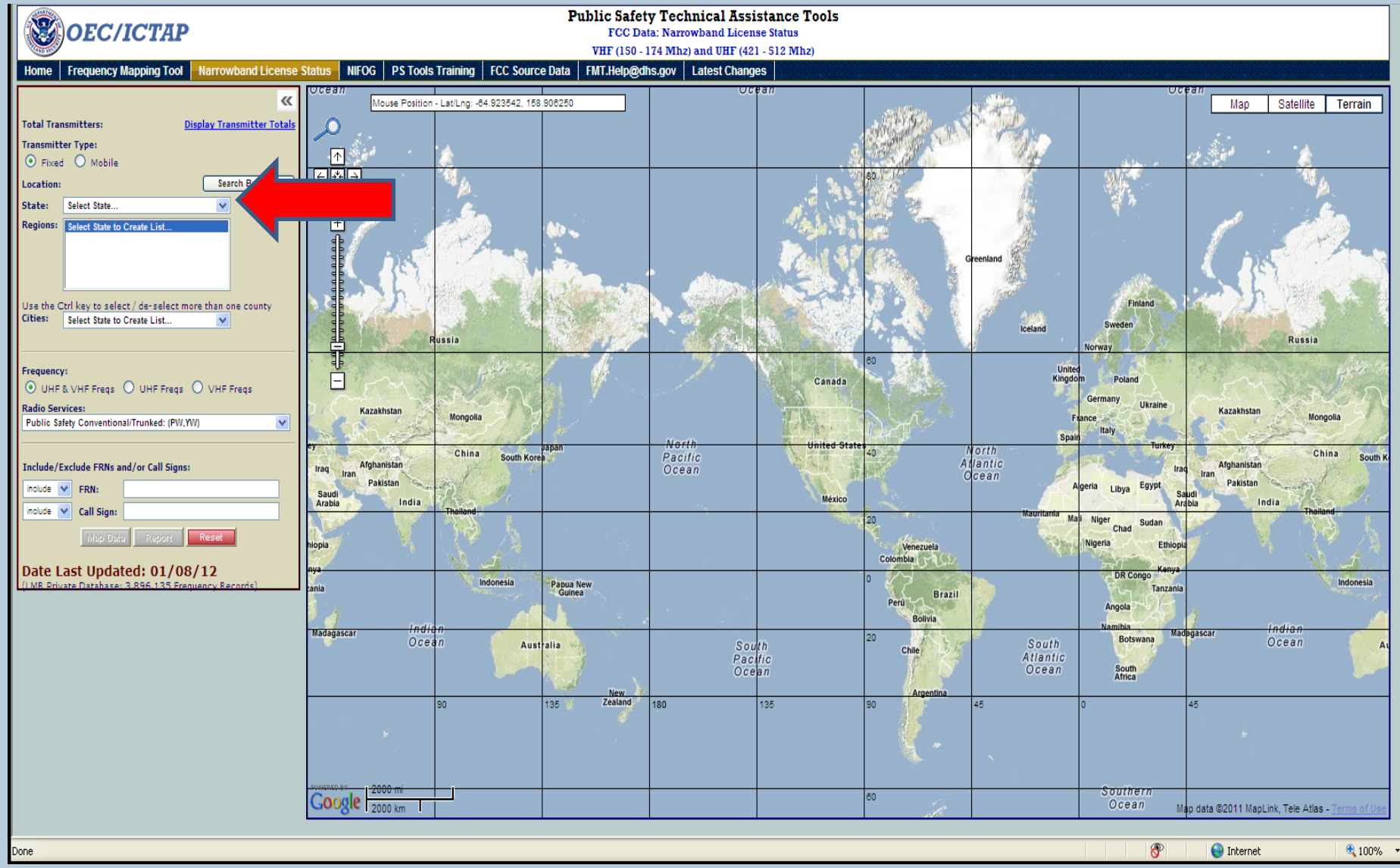
Technical Assistance Catalog & Request

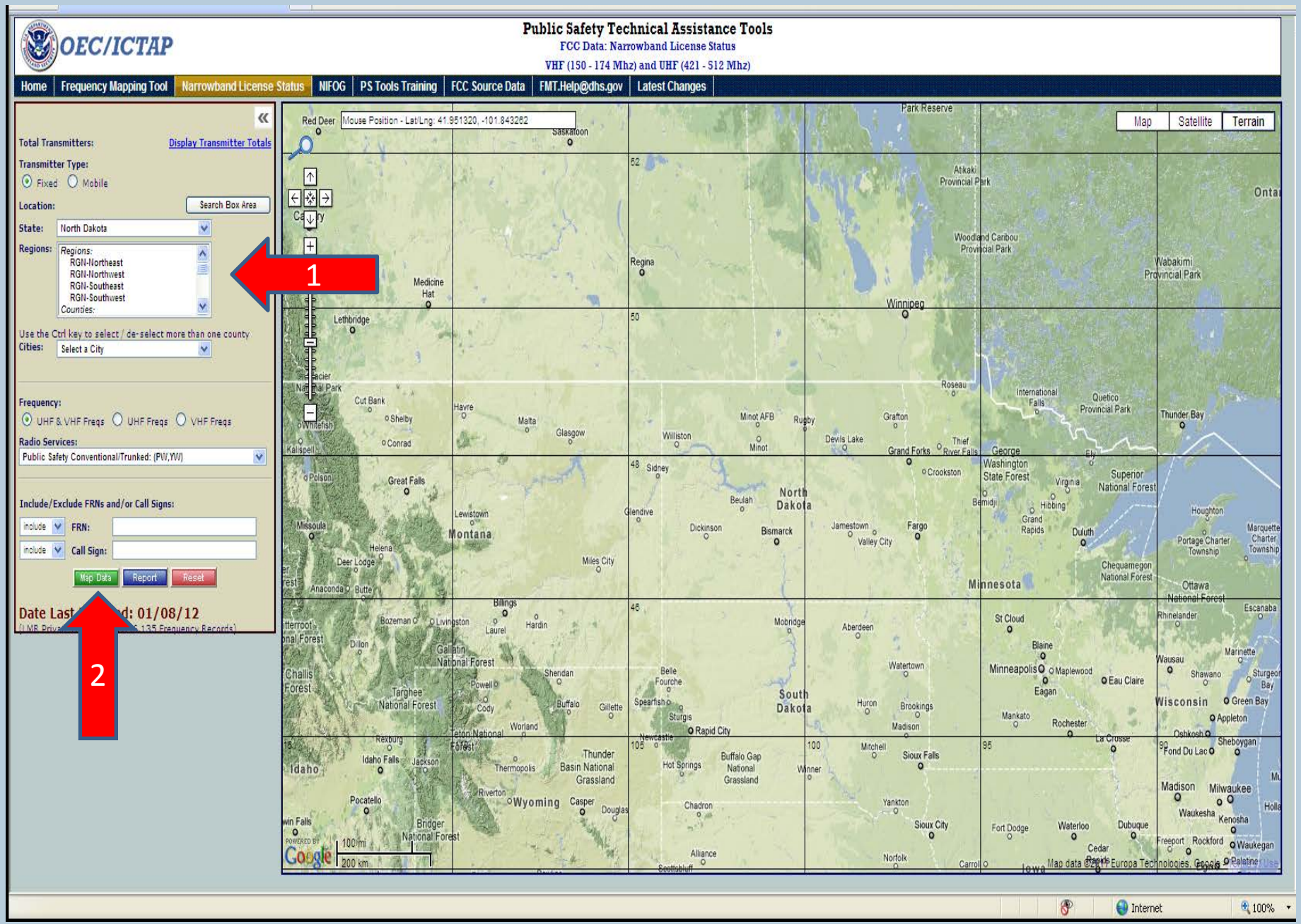
Narrowband License Status Tool (NLST)

Frequency Mapping Tool (FMT)

Public Safety Tools Available Training

NOTICE: HTTPS Certificate Correction Procedures


OEC/ICTAP
Public Safety Technical Assistance Tools
FCC Data: Narrowband License Status
VHF (150 - 174 Mhz) and UHF (421 - 512 Mhz)
Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
PS Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters:
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
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:
Map Data
Report
Reset
Date Last Updated: 01/08/12
Mouse Position - Lat/Lng: -64.923542, 158.906250
Map
Satellite
Terrain
Greenland
Russia
Canada
United States
Mexico
Venezuela
Colombia
Brazil
Peru
Bolivia
Chile
Argentina
Iceland
Finland
Sweden
Norway
United Kingdom
Poland
Germany
Ukraine
France
Spain
Italy
Turkey
Kazakhstan
Mongolia
China
South Korea
Japan
Iraq
Iran
Afghanistan
Pakistan
Saudi Arabia
India
Thailand
Indonesia
Papua New Guinea
Australia
New Zealand
Madagascar
Algeria
Libya
Egypt
Mauritania
Mali
Niger
Chad
Sudan
Nigeria
Ethiopia
DR Congo
Kenya
Tanzania
Angola
Namibia
Botswana
South Africa
North Pacific Ocean
North Atlantic Ocean
South Pacific Ocean
South Atlantic Ocean
Indian Ocean
Southern Ocean
2000 mi
2000 km
Map data ©2011 MapLink, Tele Atlas - Terms of Use
Done
Internet
100%


OEC/ICTAP
Public Safety Technical Assistance Tools
FCC Data: Narrowband License Status
VHF (150 - 174 Mhz) and UHF (421 - 512 Mhz)
Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
PS Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters:
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
Search Box Area
State:
North Dakota
Regions:
Regions:
RGN-Northeast
RGN-Northwest
RGN-Southeast
RGN-Southwest
Counties:
1
Use the Ctrl key to select / de-select more than one county
Cities:
Select a City
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:
Map Data
Report
Reset
2
Date Last
d: 01/08/12
Red Deer
Mouse Position - Lat/Lng: 41.951320, -101.843262
Saskatoon
Map
Satellite
Terrain
Regina
Winnipeg
Medicine Hat
Lethbridge
Minot AFB
Williston
Minot
Devils Lake
Grand Forks
Thief River Falls
Roseau
Thunder Bay
Sidney
Crookston
Great Falls
Havre
Malta
Glasgow
Cut Bank
Shelby
Conrad
Whitefish
Kalispell
Polson
Missoula
Lewistown
Montana
Helena
Deer Lodge
Anaconda
Butte
Miles City
Glendive
Beulah
Dickinson
Bismarck
Jamestown
Valley City
Fargo
North Dakota
Duluth
Minnesota
Billings
Bozeman
Livingston
Laurel
Hardin
Dillon
Gallatin National Forest
Sheridan
Powell
Cody
Buffalo
Gillette
Worland
Rexburg
Idaho Falls
Jackson
Thermopolis
Thunder Basin National Grassland
Riverton
Wyoming
Casper
Douglas
Pocatello
Bridger National Forest
Mobridge
Aberdeen
Belle Fourche
Spearfish
Sturgis
Rapid City
Newcastle
Hot Springs
Buffalo Gap National Grassland
Winner
Mitchell
Sioux Falls
Yankton
Sioux City
Chadron
Alliance
Scottsbluff
Norfolk
Watertown
Huron
Brookings
Madison
Mankato
Rochester
La Crosse
St Cloud
Blaine
Minneapolis
Maplewood
Eagan
Eau Claire
Wisconsin
Green Bay
Appleton
Oshkosh
Sheboygan
Fond Du Lac
Milwaukee
Madison
Waukesha
Kenosha
Waukegan
Rockford
Freeport
Dubuque
Waterloo
Fort Dodge
Cedar Rapids
Iowa
Park Reserve
Atikaki Provincial Park
Woodland Caribou Provincial Park
Wabakimi Provincial Park
International Falls
Quetico Provincial Park
Washington State Forest
Superior National Forest
Virginia
Bemidji
Hibbing
Grand Rapids
Houghton
Portage Charter Township
Marquette Charter Township
Chequamegon National Forest
Ottawa National Forest
Escanaba
Rhinelander
Wausau
Marinette
Shawano
Sturgeon Bay
Challis Forest
Targhee National Forest
Idaho
Google
100mi
200 km
Map data ©2011 Europa Technologies, Geosis
Internet
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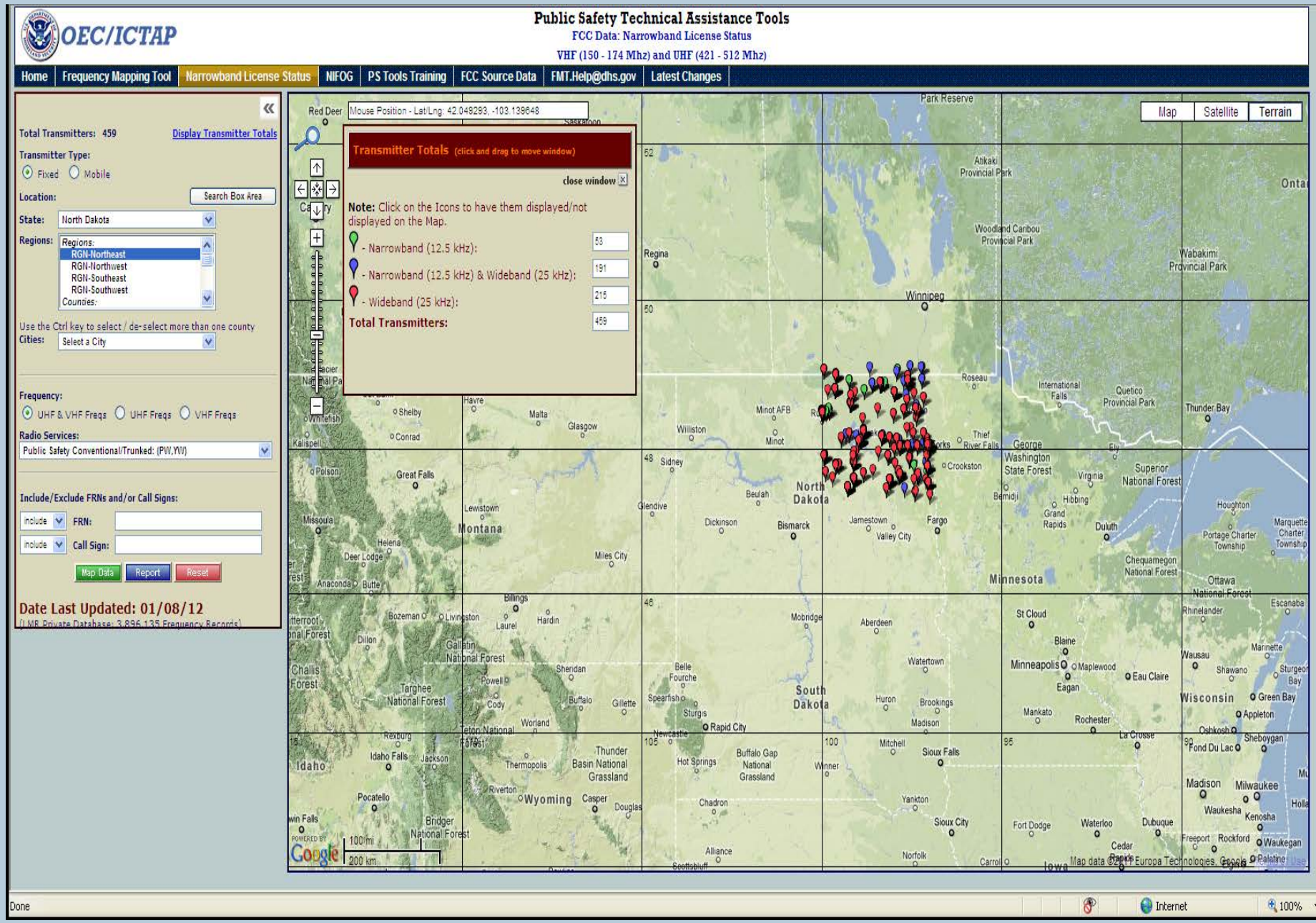
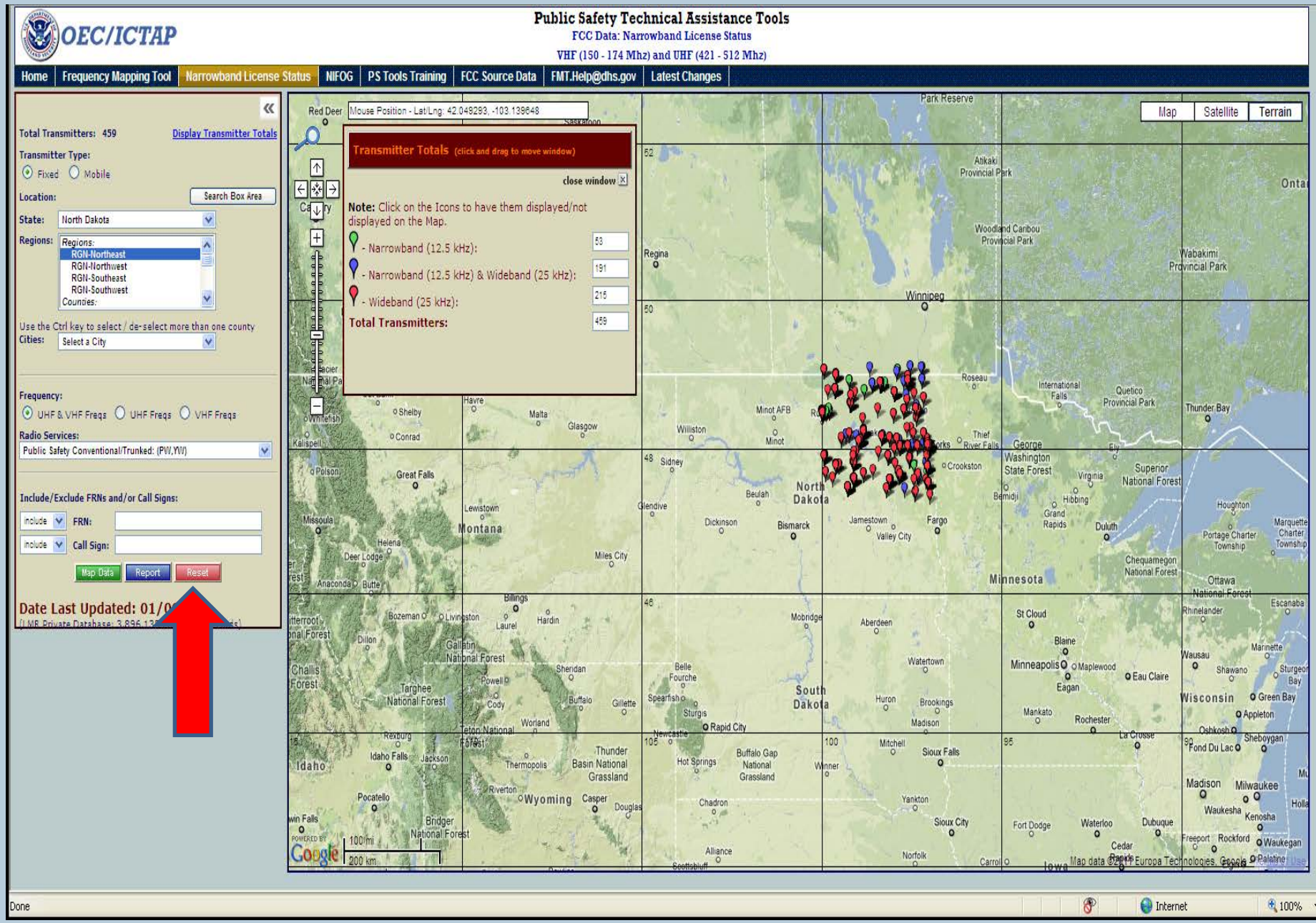
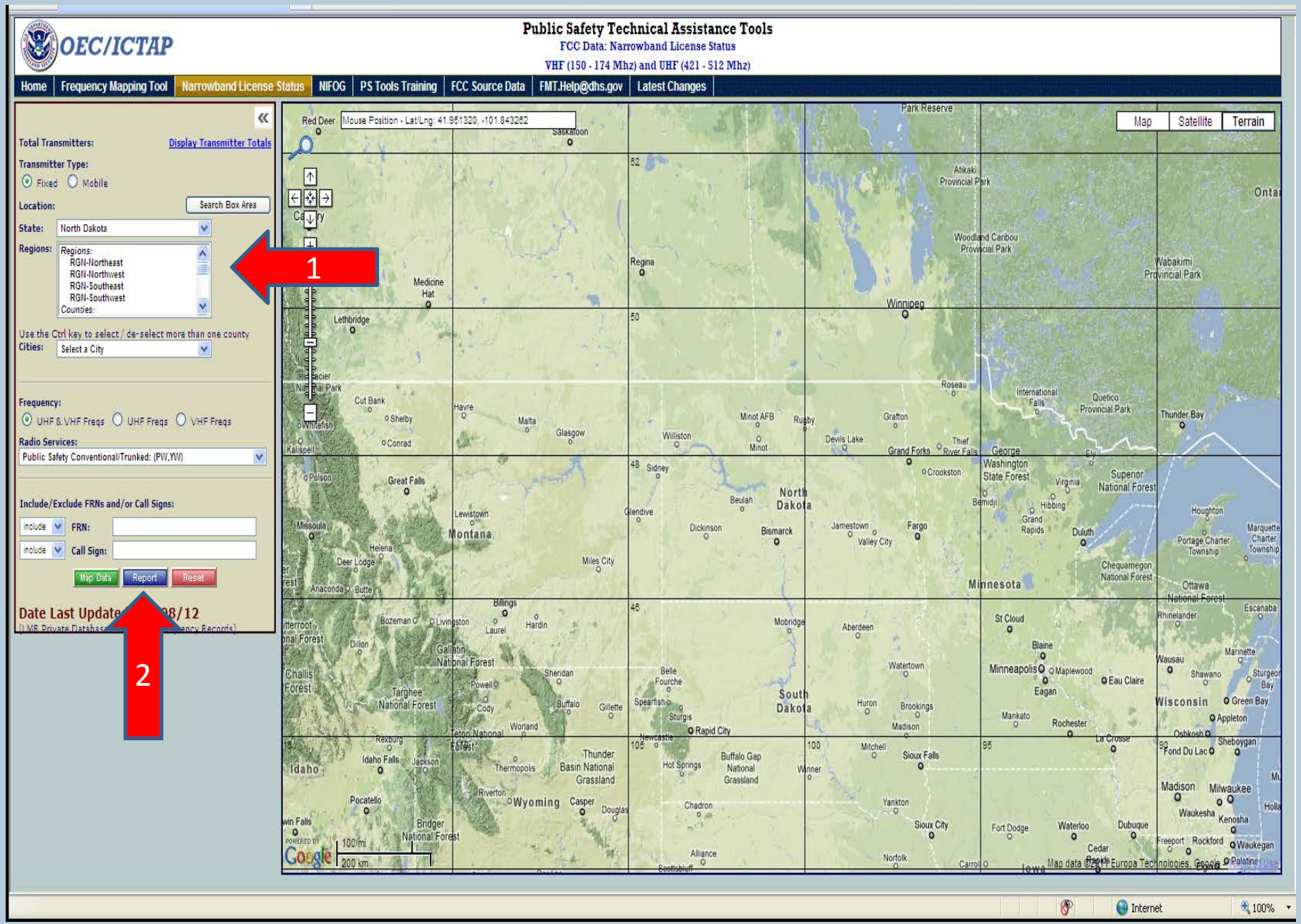
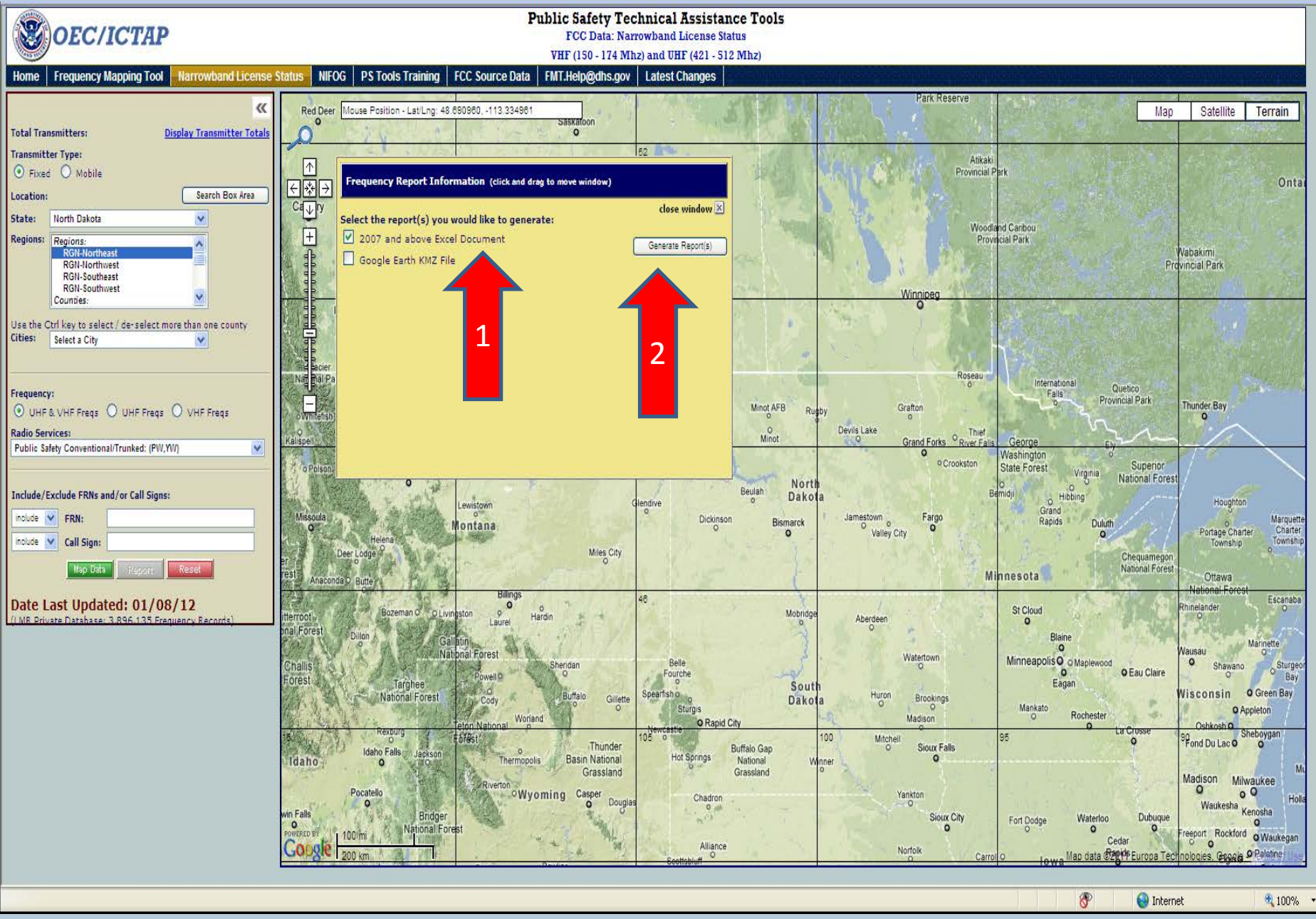
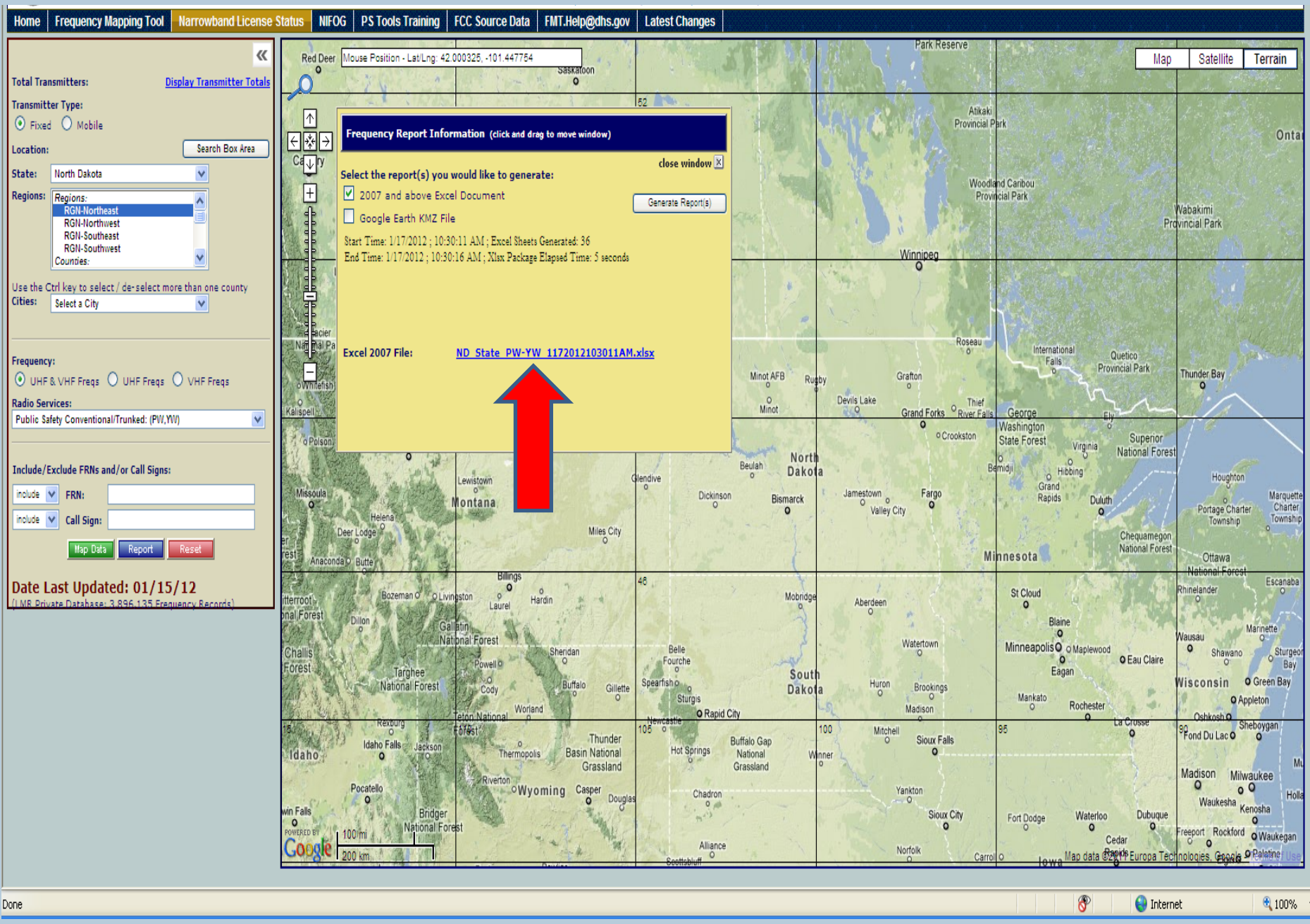

OEC/ICTAP
Public Safety Technical Assistance Tools
FCC Data: Narrowband License Status
VHF (150 - 174 Mhz) and UHF (421 - 512 Mhz)
Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
P.S Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters: 459
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
Search Box Area
State: North Dakota
Regions:
RGN-Northeast
RGN-Northwest
RGN-Southeast
RGN-Southwest
Use the Ctrl key to select / de-select more than one county
Cities: Select a City
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:
Map Data
Report
Reset
Date Last Updated: 01/08/12
Mouse Position - Lat/Lng: 42.049283, -103.139648
Map
Satellite
Terrain
Transmitter Totals (click and drag to move window)
close window
Note: Click on the Icons to have them displayed/not displayed on the Map.
- Narrowband (12.5 kHz): 53
- Narrowband (12.5 kHz) & Wideband (25 kHz): 191
- Wideband (25 kHz): 215
Total Transmitters: 459
Regina
Winnipeg
Minot AFB
Minot
Williston
Bismarck
Dickinson
Fargo
Jamestown
Valley City
Grand Forks
Thief River Falls
Roseau
International Falls
Thunder Bay
Great Falls
Billings
Missoula
Helena
Butte
Bozeman
Livingston
Dillon
Sheridan
Gillette
Rapid City
Sioux Falls
Aberdeen
Watertown
Brookings
Minneapolis
St Cloud
Duluth
Rochester
La Crosse
Eau Claire
Green Bay
Milwaukee
Madison
Chicago
Omaha
Sioux City
Waterloo
Dubuque
Rockford
Waukegan
Fond Du Lac
Oshkosh
Appleton
Wausau
Rhinelander
Escanaba
Marquette
Houghton
Montana
North Dakota
South Dakota
Minnesota
Wisconsin
Wyoming
Idaho
Iowa
Nebraska
Gallatin National Forest
Targhee National Forest
Challis Forest
Thunder Basin National Grassland
Buffalo Gap National Grassland
Chequamegon National Forest
Superior National Forest
Washington State Forest
Ottawa National Forest
Bridger National Forest
Teton National Forest
Map data ©2011 Europa Technologies, Google
Done
Internet
100%

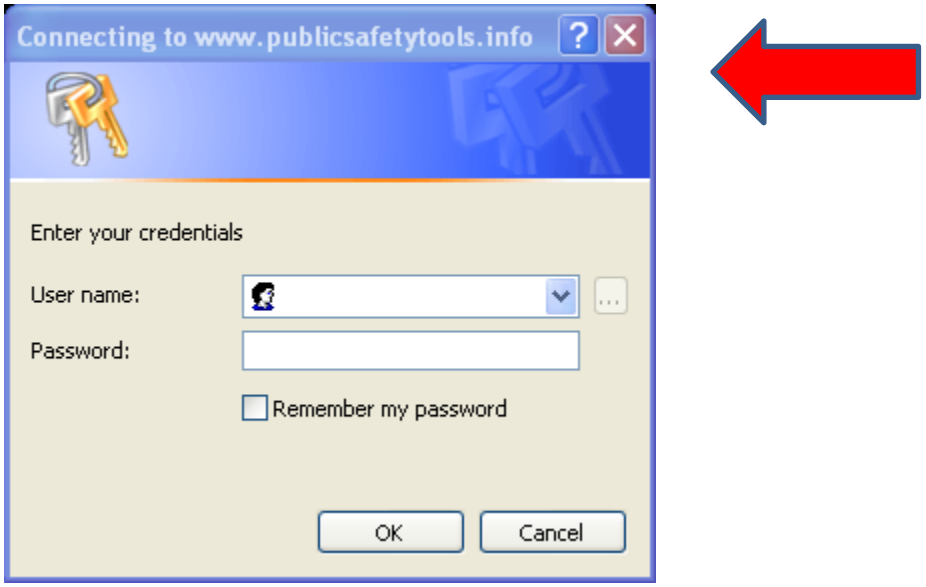

OEC/ICTAP
Public Safety Technical Assistance Tools
FCC Data: Narrowband License Status
VHF (150 - 174 Mhz) and UHF (421 - 512 Mhz)
Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
P.S Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters: 459
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
Search Box Area
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:
Select a City
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:
Map Data
Report
Reset
Date Last Updated: 01/0
Red Deer
Mouse Position - Lat/Lng: 42.049283, -103.139648
Transmitter Totals (click and drag to move window)
close window
Note: Click on the Icons to have them displayed/not displayed on the Map.
- Narrowband (12.5 kHz):
53
- Narrowband (12.5 kHz) & Wideband (25 kHz):
191
- Wideband (25 kHz):
215
Total Transmitters:
459
Map
Satellite
Terrain
Regina
Winnipeg
Minot AFB
Minot
Williston
Havre
Malta
Glasgow
Shelby
Conrad
Great Falls
Missoula
Helena
Deer Lodge
Butte
Anaconda
Miles City
Billings
Bozeman
Livingston
Laurel
Hardin
Dillon
Gallatin National Forest
Targhee National Forest
Challis Forest
Sheridan
Powell
Cody
Buffalo
Gillette
Worland
Teton National Forest
Rexburg
Idaho Falls
Jackson
Thermopolis
Thunder Basin National Grassland
Riverton
Wyoming
Casper
Douglas
Pocatello
Bridger National Forest
Chadron
Alliance
Scottsbluff
Sidney
Glendive
Dickinson
Bismarck
Beulah
North Dakota
Jamestown
Valley City
Fargo
Crookston
Roseau
Thief River Falls
Park Reserve
Atikaki Provincial Park
Woodland Caribou Provincial Park
Wabakimi Provincial Park
International Falls
Quetico Provincial Park
Thunder Bay
George Washington State Forest
Superior National Forest
Virginia
Bemidji
Hibbing
Grand Rapids
Duluth
Houghton
Portage Charter Township
Marquette Charter Township
Chequamegon National Forest
Minnesota
Ottawa National Forest
Rhinelander
Escanaba
Marinette
Wausau
Shawano
Sturgeon Bay
Green Bay
Appleton
Oshkosh
Sheboygan
Fond Du Lac
Madison
Milwaukee
Waukesha
Kenosha
Waukegan
Palatine
Wisconsin
Minneapolis
Maplewood
Eau Claire
Eagan
St Cloud
Blaine
Aberdeen
Mobridge
Watertown
Huron
Brookings
Madison
Rochester
La Crosse
Mankato
Belle Fourche
Spearfish
Sturgis
Rapid City
Newcastle
South Dakota
Buffalo Gap National Grassland
Hot Springs
Mitchell
Sioux Falls
Winner
Yankton
Sioux City
Fort Dodge
Waterloo
Dubuque
Freeport
Rockford
Cedar Rapids
Iowa
Norfolk
Carroll
Omaha
Idaho
Montana
Wyoming
South Dakota
North Dakota
Minnesota
Wisconsin
Iowa
100 mi
200 km
Map data ©2011 Europa Technologies, Google
Done
Internet
100%


OEC/ICTAP
Public Safety Technical Assistance Tools
FCC Data: Narrowband License Status
VHF (150 - 174 Mhz) and UHF (421 - 512 Mhz)
Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
PS Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters:
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
Search Box Area
State:
North Dakota
Regions:
Regions:
RGN-Northeast
RGN-Northwest
RGN-Southeast
RGN-Southwest
Counties:
1
Use the Ctrl key to select / de-select more than one county
Cities:
Select a City
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:
Map Data
Report
Reset
Date Last Update
2
Red Deer
Saskatoon
Mouse Position - Lat/Lng: 41.951320, -101.843262
Map
Satellite
Terrain
Regina
Medicine Hat
Winnipeg
Lethbridge
Cut Bank
Shelby
Havre
Malta
Glasgow
Williston
Minot AFB
Minot
Rugby
Devils Lake
Grafton
Grand Forks
Roseau
International Falls
Quetico Provincial Park
Thunder Bay
Wabakimi Provincial Park
Atikaki Provincial Park
Woodland Caribou Provincial Park
Whitefish
Kalispell
Conrad
Great Falls
Lewistown
Missoula
Helena
Deer Lodge
Anaconda
Butte
Miles City
Sidney
Glendive
Beulah
Dickinson
Bismarck
Jamestown
Valley City
Fargo
Crookston
Thief River Falls
Bemidji
Hibbing
Grand Rapids
Duluth
Washington State Forest
Superior National Forest
Chequamegon National Forest
Houghton
Portage Charter Township
Marquette Charter Township
Montana
North Dakota
Minnesota
Billings
Bozeman
Livingston
Laurel
Hardin
Dillon
Gallatin National Forest
Challis Forest
Targhee National Forest
Sheridan
Powell
Cody
Buffalo
Gillette
Worland
Rexburg
Idaho Falls
Jackson
Thermopolis
Thunder Basin National Grassland
Riverton
Wyoming
Casper
Douglas
Pocatello
Bridger National Forest
Belle Fourche
Spearfish
Sturgis
Rapid City
Newcastle
Hot Springs
Buffalo Gap National Grassland
Chadron
Alliance
Scottsbluff
Mobridge
Aberdeen
Watertown
Huron
Brookings
Madison
Mitchell
Winner
Yankton
Sioux City
Sioux Falls
South Dakota
St Cloud
Blaine
Minneapolis
Maplewood
Eagan
Eau Claire
Mankato
Rochester
La Crosse
Wisconsin
Green Bay
Appleton
Oshkosh
Sheboygan
Fond Du Lac
Wausau
Rhinelander
Escanaba
Marinette
Shawano
Sturgeon Bay
Madison
Milwaukee
Waukesha
Kenosha
Fort Dodge
Waterloo
Dubuque
Cedar Rapids
Freeport
Rockford
Waukegan
Palatine
Norfolk
Carroll
Iowa
Google
100mi
200 km
Internet
100%


OEC/ICTAP
Public Safety Technical Assistance Tools
FCC Data: Narrowband License Status
VHF (150 - 174 Mhz) and UHF (421 - 512 Mhz)
Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
PS Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters:
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
Search Box Area
State:
North Dakota
Regions:
RGN-Northeast
RGN-Northwest
RGN-Southeast
RGN-Southwest
Counties:
Use the Ctrl key to select / de-select more than one county
Cities:
Select a City
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:
Map Data
Reports
Reset
Date Last Updated: 01/08/12
(LMR Private Database: 3,896,135 Frequency Records)
Mouse Position - Lat/Lng: 48.690960, -113.334961
Map
Satellite
Terrain
Frequency Report Information (click and drag to move window)
close window
Select the report(s) you would like to generate:
2007 and above Excel Document
Google Earth KMZ File
Generate Report(s)
1
2
Red Deer
Saskatoon
Park Reserve
Atikaki Provincial Park
Woodland Caribou Provincial Park
Wabakimi Provincial Park
Winnipeg
Roseau
International Falls
Quetico Provincial Park
Thunder Bay
Minot AFB
Minot
Rugby
Grafton
Devils Lake
Grand Forks
Thief River Falls
George Washington State Forest
Superior National Forest
Crookston
Virginia
Bemidji
Hibbing
Grand Rapids
Duluth
Houghton
Portage Charter Township
Marquette Charter Township
Chequamegon National Forest
Ottawa National Forest
Escanaba
Rhinelander
Wausau
Marinette
Shawano
Sturgeon Bay
Green Bay
Appleton
Oshkosh
Sheboygan
Fond Du Lac
Madison
Milwaukee
Waukesha
Kenosha
Waukegan
Freeport
Rockford
Palatine
Dubuque
Waterloo
Fort Dodge
Cedar Rapids
La Crosse
Minneapolis
Maplewood
Eau Claire
Eagan
St Cloud
Blaine
Wisconsin
Minnesota
North Dakota
South Dakota
Montana
Wyoming
Idaho
Iowa
Glendive
Dickinson
Bismarck
Jamestown
Valley City
Fargo
Beulah
Lewistown
Missoula
Helena
Deer Lodge
Anaconda
Butte
Miles City
Billings
Bozeman
Livingston
Laurel
Hardin
Dillon
Gallatin National Forest
Challis Forest
Targhee National Forest
Sheridan
Powell
Cody
Buffalo
Gillette
Worland
Rexburg
Idaho Falls
Jackson
Thermopolis
Thunder Basin National Grassland
Riverton
Casper
Douglas
Pocatello
Bridger National Forest
Mobridge
Aberdeen
Belle Fourche
Spearfish
Sturgis
Rapid City
Newcastle
Hot Springs
Buffalo Gap National Grassland
Chadron
Alliance
Scottsbluff
Watertown
Huron
Brookings
Madison
Mankato
Rochester
Mitchell
Sioux Falls
Winner
Yankton
Sioux City
Norfolk
Carroll
Huron
Brookings
Madison
Mankato
Rochester
Google
100 mi
200 km
Map data ©2011 Europa Technologies, Google
Internet
100%


Home
Frequency Mapping Tool
Narrowband License Status
NIFOG
PS Tools Training
FCC Source Data
FMT.Help@dhs.gov
Latest Changes
Total Transmitters:
Display Transmitter Totals
Transmitter Type:
Fixed
Mobile
Location:
Search Box Area
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:
Select a City
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:
Map Data
Report
Reset
Date Last Updated: 01/15/12
Mouse Position - Lat/Lng: 42.000325, -101.447754
Map
Satellite
Terrain
Frequency Report Information (click and drag to move window)
close window
Select the report(s) you would like to generate:
2007 and above Excel Document
Google Earth KMZ File
Generate Report(s)
Start Time: 1/17/2012 ; 10:30:11 AM ; Excel Sheets Generated: 36
End Time: 1/17/2012 ; 10:30:16 AM ; Xlsx Package Elapsed Time: 5 seconds
Excel 2007 File:
ND_State_PW-YW_1172012103011AM.xlsx
Winnipeg
Minneapolis
Minnesota
North Dakota
South Dakota
Montana
Wisconsin
Idaho
Wyoming
Iowa
Google

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



ND_State_PW-YW_1172012103011AM.xlsx [Read-Only]

	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 distiguishing 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			

OEC/ICTAP

Ready

100%

ND_State_PW-YW_1172012103011AM.xlsx [Read-Only]

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

OEC/ICTAP

Column	Description	Notes
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
B	State abbreviation contained in the search	The State Abbreviation is displayed as a distiguishing field when a search is done across multiple States via the Search Box Area Feature
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
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
E	Total number of FRNs	The sum of the previous two columns
F	Percentage of FRNs where all associated frequencies are licensed for NB use	A narrowband licensing metric from an FRN perspective
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
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
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
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.
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

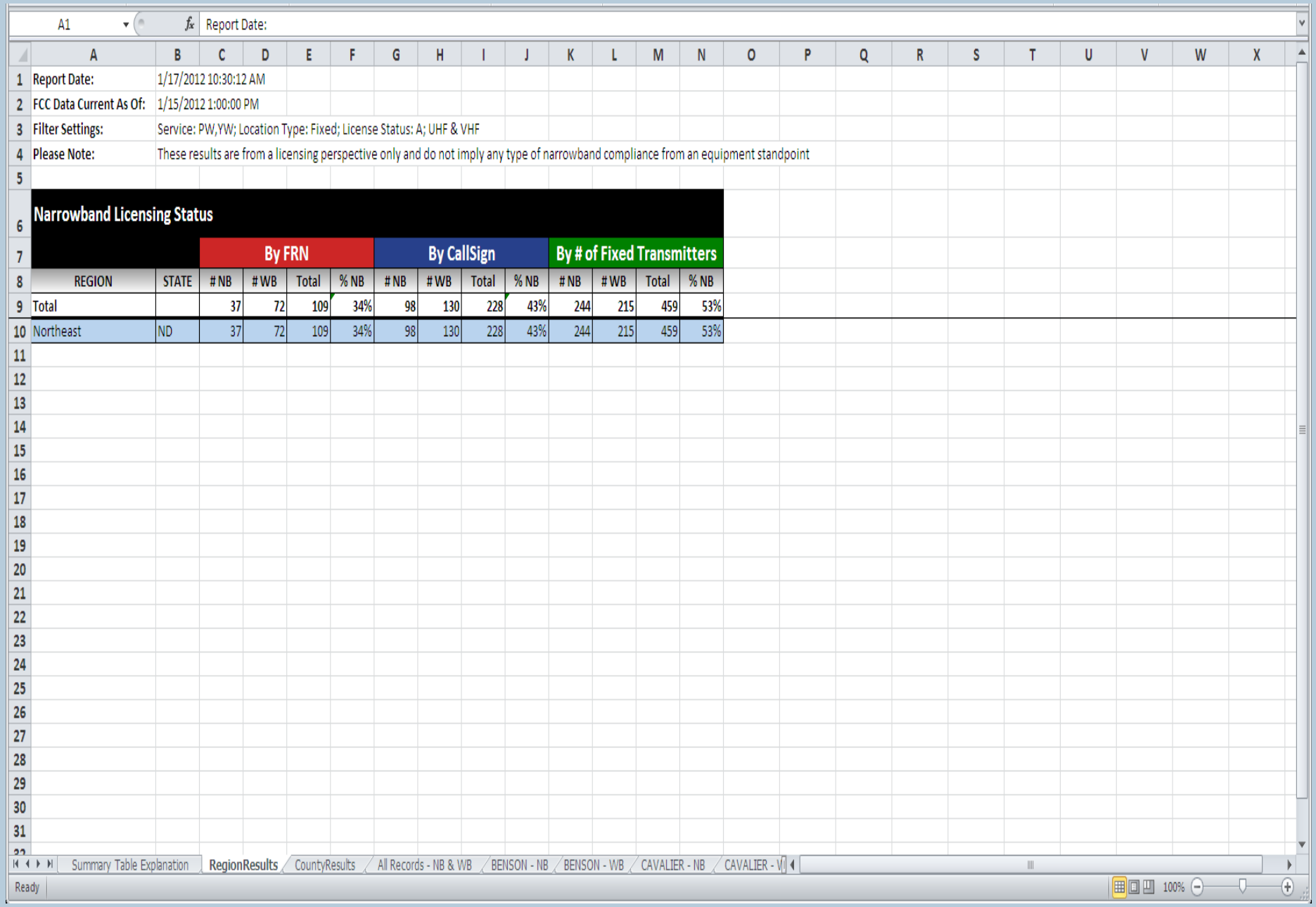
Ready 100%

	A	B	C	D	E	F	G
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 distiguishing 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 tran[illegible] 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 tran[illegible] 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.				
19	M	Total number o[illegible]itters	The sum of the previous two columns				

Summary Table Explanation | RegionResults | CountyResults | All Records - NB & WB | BENSON - NB | BENSON - WB | CAVALIER - NB | CAVALIER - W

Ready

100%



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

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%

Summary Table Explanation | RegionResults | CountyResults | All Records - NB & WB | BENSON - NB | BENSON - WB | CAVALIER - NB | CAVALIER - W

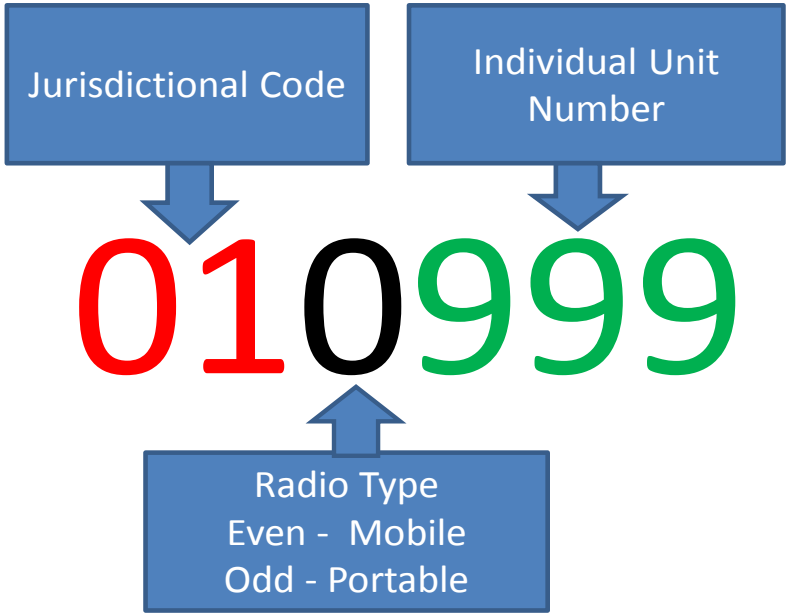
Ready

100%

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

Digital Radio Identification List							
Radio # Range		Jurisdiction Name					
000000	009999	State Radio Units Mobile					
010000	019999		010000	010999	Adams County LE Mobile		
020000	029999		011000	011999	Adams County LE Portable		
030000	039999		012000	012999	Adams County Fire Mobile		
040000	049999		013000	013999	Adams County Fire Portable		
050000	059999		014000	014999	Adams County Ambulance Mobile		
060000	069999		015000	015999	Adams County Ambulance Portable		
070000	079999		016000	016999	Adams County Emergency Services Mobile		
080000	089999		017000	017999	Adams County Emergency Services Portable		
090000	099999		018000	018499	Adams County Public Works Mobile		
100000	109999		018500	018999	Adams County Education Mobile		
110000	119999		019000	019499	Adams County Public Works Portable		
120000	129999		019500	019999	Adams County Education Portable		
130000	139999						
140000	149999						
150000	159999						
160000	169999						
170000	179999						
180000	189999						
190000	199999						
200000	209999						
210000	219999						
220000	229999						
230000	239999						
240000	249999						
250000	259999						
260000	269999						
270000	279999						
280000	289999						
290000	299999						
300000	309999						
310000	319999						
320000	329999						
330000	339999						
340000	349999						
350000	359999						
360000	369999						
370000	379999						
380000	389999						
390000	399999						
400000	409999						
410000	419999						
420000	429999						


Jurisdictional Code
Individual Unit Number
010999
Radio Type
Even - Mobile
Odd - Portable

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.

State Radio Contacts

- Primary Contact:
  Janell Quinlan
  (701) 328-8180
  jquinlan@nd.gov

- Secondary Contact:
  Mike Lynk
  (701) 328-8150
  mlynk@nd.gov

Questions

ND Department of Emergency Services

Ensuring a safe and secure homeland for all North Dakotans