

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

XT FX

(Class of Station)

WQ9XIW

(Call Sign)

0553-EX-ST-2020

(File Number)

NAME Phoenix Air Unmanned, LLC

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

Purpose Of Operation:

Xcel Energy teamed with L3Harris and PAU will operate under FAA 14 CFR Part 107 waiver #107W-2019-00055B to fly a small UAS at low altitude (below 250 ft) in remote/non-urban areas.

Station Locations

- (1) Osakis (DOUGLAS), MN - NL 45-51-13; WL 95-09-01
- (2) West Union (TODD), MN - NL 45-48-09; WL 95-04-47
- (3) Detroit Lakes (BECKER), MN - NL 46-50-46; WL 95-47-44
- (4) Frazee (BECKER), MN - NL 46-48-27; WL 95-38-53
- (5) Menahga (HUBBARD), MN - NL 46-48-38; WL 95-06-03
- (6) Menahga (BECKER), MN - NL 46-48-26; WL 95-17-21
- (7) Frazee (BECKER), MN - NL 46-48-25; WL 95-28-42
- (8) Cook (ITASCA), MN - NL 47-42-15; WL 93-12-08
- (9) Togo (ITASCA), MN - NL 47-49-15; WL 93-11-27
- (10) Effie (KOOCHICHING), MN - NL 47-56-58; WL 93-28-10
- (11) Effie (KOOCHICHING), MN - NL 47-58-13; WL 93-35-22
- (12) Big Falls (KOOCHICHING), MN - NL 48-03-27; WL 93-43-04
- (13) Reynolds (GRAND FORKS), ND - NL 47-44-11; WL 97-04-03
- (14) Buxton (TRAILL), ND - NL 47-38-04; WL 97-04-10
- (15) Cummings (TRAILL), ND - NL 47-31-37; WL 97-04-10
- (16) Hillsboro (TRAILL), ND - NL 47-25-31; WL 97-03-51
- (17) Grand Forks (GRAND FORKS), ND - NL 47-52-30; WL 97-04-03
- (18) Margie (KOOCHICHING), MN - NL 48-07-37; WL 93-53-22
- (19) Margie (KOOCHICHING), MN - NL 48-09-12; WL 93-54-56
- (20) Margie (KOOCHICHING), MN - NL 48-10-07; WL 93-55-43

This authorization effective May 01, 2020 and
will expire 3:00 A.M. EST November 02, 2020

**FEDERAL
COMMUNICATIONS
COMMISSION**



Station Locations

- (21) Big Falls (KOOCHICHING), MN - NL 48-10-49; WL 94-06-11
- (22) Big Falls (KOOCHICHING), MN - NL 48-12-23; WL 94-18-58
- (23) Middlebro (ROSEAU), MN - NL 48-59-28; WL 95-32-23
- (24) Warroad (ROSEAU), MN - NL 48-57-31; WL 95-26-30
- (25) Salol (ROSEAU), MN - NL 48-54-03; WL 95-26-26
- (26) Warroad (ROSEAU), MN - NL 48-47-06; WL 95-25-00
- (27) Williams (LAKE OF THE WOODS), MN - NL 48-46-12; WL 95-05-25
- (28) Warroad (ROSEAU), MN - NL 48-45-43; WL 95-15-53
- (29) Williams (LAKE OF THE WOODS), MN - NL 48-40-35; WL 94-57-04
- (30) Williams (LAKE OF THE WOODS), MN - NL 48-37-51; WL 94-53-44
- (31) Baudette (LAKE OF THE WOODS), MN - NL 48-33-26; WL 94-47-37
- (32) Baudette (LAKE OF THE WOODS), MN - NL 48-22-56; WL 94-33-34
- (33) Waskish (KOOCHICHING), MN - NL 48-16-25; WL 94-22-55
- (34) Waskish (BELTRAMI), MN - NL 48-19-51; WL 94-28-26
- (35) Effie (KOOCHICHING), MN - NL 47-55-54; WL 93-17-03
- (36) Effie (KOOCHICHING), MN - NL 47-57-03; WL 93-24-36
- (37) Baudette (LAKE OF THE WOODS), MN - NL 48-30-42; WL 94-43-58
- (38) Warroad (ROSEAU), MN - NL 48-53-31; WL 95-26-19
- (39) Baudette (LAKE OF THE WOODS), MN - NL 48-26-23; WL 94-37-54
- (40) Nashwauk (ITASCA), MN - NL 47-36-18; WL 93-11-36
- (41) Hibbing (ST LOUIS), MN - NL 47-31-53; WL 93-01-58
- (42) Chisholm (ST LOUIS), MN - NL 47-28-53; WL 92-54-54
- (43) Bessemer (GOGEbic), MI - NL 46-26-56; WL 90-05-17
- (44) Bessemer (GOGEbic), MI - NL 46-26-56; WL 90-05-17
- (45) Fall Creek (EAU CLAIRE), WI - NL 44-48-50; WL 91-13-53
- (46) Fall Creek (EAU CLAIRE), WI - NL 44-45-40; WL 91-15-32
- (47) Augusta (EAU CLAIRE), WI - NL 44-38-51; WL 91-01-26
- (48) Humbird (JACKSON), WI - NL 44-30-35; WL 90-53-31
- (49) Hixton (JACKSON), WI - NL 44-23-31; WL 90-59-23
- (50) Arpin (WOOD), WI - NL 44-43-45; WL 89-59-02
- (51) Rice Lake (EAU CLAIRE), WI - NL 45-33-07; WL 91-38-50
- (52) Stanley (EAU CLAIRE), WI - NL 44-45-45; WL 90-56-27
- (53) Augusta (EAU CLAIRE), WI - NL 44-48-02; WL 91-07-22
- (54) Willard (CLARK), WI - NL 44-44-47; WL 90-50-28
- (55) Willard (CLARK), WI - NL 44-43-03; WL 90-41-59
- (56) Greenwood (CLARK), WI - NL 44-41-14; WL 90-32-51
- (57) Spencer (CLARK), WI - NL 44-39-53; WL 90-23-50
- (58) Marshfield (WOOD), WI - NL 44-37-54; WL 90-16-42
- (59) Rice Lake (BARRON), WI - NL 45-29-55; WL 91-42-54
- (60) Marshfield (EAU CLAIRE), WI - NL 44-35-16; WL 90-08-36
- (61) Fall Creek (EAU CLAIRE), WI - NL 44-45-59; WL 91-16-37
- (62) Augusta (EAU CLAIRE), WI - NL 44-41-24; WL 91-09-21
- (63) Augusta (EAU CLAIRE), WI - NL 44-40-28; WL 91-07-24
- (64) Humbird (CLARK), WI - NL 44-35-45; WL 90-54-46
- (65) Alma Center (JACKSON), WI - NL 44-26-08; WL 90-55-21
- (66) Merrillan (JACKSON), WI - NL 44-23-09; WL 90-49-21

Station Locations

- (67) Black River Falls (JACKSON), WI - NL 44-18-18; WL 90-49-10
- (68) Hixton (JACKSON), WI - NL 44-23-04; WL 91-00-15
- (69) Taylor (JACKSON), WI - NL 44-19-34; WL 91-07-30
- (70) Birchwood (BARRON), WI - NL 45-38-17; WL 91-36-22
- (71) Eau Claire (EAU CLAIRE), WI - NL 44-50-29; WL 91-23-56
- (72) Fall Creek (EAU CLAIRE), WI - NL 44-48-03; WL 91-22-23
- (73) Marenisco (ONTONAGON), MI - NL 46-35-34; WL 89-34-41
- (74) Ironwood (GOGEbic), MI - NL 46-26-23; WL 90-08-44
- (75) Marenisco (GOGEbic), MI - NL 46-21-37; WL 89-30-25
- (76) Wakefield (GOGEbic), MI - NL 46-30-13; WL 89-52-45
- (77) Wakefield (GOGEbic), MI - NL 46-32-53; WL 89-45-09
- (78) Wakefield (GOGEbic), MI - NL 46-26-29; WL 89-49-26
- (79) Ramsay (GOGEbic), MI - NL 46-27-23; WL 89-59-58
- (80) Marenisco (GOGEbic), MI - NL 46-23-47; WL 89-41-38
- (81) North Branch (CHISAGO), MN - NL 45-27-43; WL 92-54-53
- (82) Pine City (PINE), MN - NL 45-46-37; WL 92-50-36
- (83) Pine City (PINE), MN - NL 45-54-56; WL 92-48-58
- (84) Chisago City (CHISAGO), MN - NL 45-20-48; WL 92-55-24
- (85) Hugo (WASHINGTON), MN - NL 45-12-24; WL 92-55-00
- (86) Hugo (WASHINGTON), MN - NL 45-09-12; WL 92-54-49
- (87) Stillwater (WASHINGTON), MN - NL 45-04-20; WL 92-54-51
- (88) Scandia (WASHINGTON), MN - NL 45-14-04; WL 92-53-52
- (89) Pine City (PINE), MN - NL 45-53-22; WL 92-49-16
- (90) Lake Crystal (BLUE EARTH), MN - NL 44-03-55; WL 94-19-46
- (91) Mankato (BLUE EARTH), MN - NL 44-05-34; WL 94-06-34
- (92) Mankato (BLUE EARTH), MN - NL 44-06-06; WL 94-03-57
- (93) Lake Crystal (BLUE EARTH), MN - NL 44-05-53; WL 94-12-30
- (94) Lake Crystal (BLUE EARTH), MN - NL 44-05-39; WL 94-14-56
- (95) Madelia (WATONWAN), MN - NL 44-03-01; WL 94-23-57
- (96) Faribault (RICE), MN - NL 44-18-06; WL 93-13-56
- (97) Kenyon (GOODHUE), MN - NL 44-16-43; WL 92-26-54
- (98) Zumbrota (GOODHUE), MN - NL 44-16-55; WL 92-56-24
- (99) Pine Island (GOODHUE), MN - NL 44-12-31; WL 92-39-03
- (100) Zumbro Falls (WABASHA), MN - NL 44-17-24; WL 95-25-11
- (101) Lake City (WABASHA), MN - NL 44-26-40; WL 92-17-03
- (102) Red Wing (GOODHUE), MN - NL 44-30-30; WL 92-21-52
- (103) Zumbrota (GOODHUE), MN - NL 44-17-35; WL 92-41-59
- (104) Wanamingo (GOODHUE), MN - NL 44-17-54; WL 92-47-16
- (105) Kenyon (RICE), MN - NL 44-17-54; WL 93-03-42
- (106) Red Wing (GOODHUE), MN - NL 44-32-53; WL 92-25-42
- (107) Millville (WABASHA), MN - NL 44-16-41; WL 92-19-49
- (108) Mazeppa (WABASHA), MN - NL 44-16-30; WL 92-32-08
- (109) Carver (CARVER), MN - NL 44-45-39; WL 93-38-43
- (110) Cologne (CARVER), MN - NL 44-45-12; WL 93-49-44
- (111) Gaylord (SIBLEY), MN - NL 44-33-17; WL 94-11-57
- (112) Winthrop (SIBLEY), MN - NL 44-31-55; WL 94-21-42

Station Locations

(113 Franklin (RENVILLE), MN - NL 44-31-00; WL 94-49-37
(114 Lafayette (NICOLLET), MN - NL 44-26-28; WL 94-23-33
(115 New Ulm (NICOLLET), MN - NL 44-21-21; WL 94-28-01
(116 Sacred Heart (RENVILLE), MN - NL 44-47-15; WL 95-21-27
(117 Marshall (LYON), MN - NL 44-28-20; WL 95-40-25
(118 Cottonwood (LYON), MN - NL 44-35-13; WL 95-39-56
(119 Gibbon (SIBLEY), MN - NL 44-30-50; WL 94-31-38
(120 New Ulm (NICOLLET), MN - NL 44-22-48; WL 94-28-20
(121 Fairfax (RENVILLE), MN - NL 44-30-53; WL 94-41-06
(122 Hamburg (CARVER), MN - NL 44-44-08; WL 93-57-46
(123 Green Isle (SIBLEY), MN - NL 44-40-32; WL 94-00-36
(124 Arlington (SIBLEY), MN - NL 44-36-50; WL 94-04-00
(125 Arlington (SIBLEY), MN - NL 44-35-54; WL 94-05-30
(126 Gaylord (SIBLEY), MN - NL 44-32-56; WL 94-13-39
(127 Hanley Falls (YELLOW MEDICINE), MN - NL 44-40-25; WL 95-36-52
(128 Granite Falls (CHIPPEWA), MN - NL 44-47-44; WL 95-28-00
(129 Sacred Heart (RENVILLE), MN - NL 44-46-28; WL 95-20-25
(130 Renville (RENVILLE), MN - NL 44-48-12; WL 95-13-11
(131 Danube (RENVILLE), MN - NL 44-48-13; WL 95-06-39
(132 Davis (TURNER), SD - NL 44-13-47; WL 96-58-54
(133 Canistota (MCCOOK), SD - NL 43-36-06; WL 97-17-33
(134 Salem (MCCOOK), SD - NL 43-42-09; WL 97-22-31
(135 Ruthton (PIPESTONE), MN - NL 44-10-29; WL 96-09-53
(136 Lake Benton (LINCOLN), MN - NL 44-17-05; WL 96-18-07
(137 Currie (MURRAY), MN - NL 44-03-52; WL 95-39-49
(138 Currie (MURRAY), MN - NL 44-04-49; WL 95-39-50
(139 Holland (PIPESTONE), MN - NL 44-05-45; WL 96-06-16
(140 Lake Benton (LINCOLN), MN - NL 44-13-34; WL 96-20-35
(141 Lake Benton (LINCOLN), MN - NL 44-14-21; WL 96-15-36
(142 Lake Benton (LINCOLN), MN - NL 44-15-23; WL 96-20-35
(143 Lake Benton (LINCOLN), MN - NL 44-19-39; WL 96-24-15
(144 Elkton (LINCOLN), MN - NL 44-23-11; WL 96-25-34
(145 Slayton (MURRAY), MN - NL 43-58-42; WL 95-40-31
(146 Tracy (MURRAY), MN - NL 44-11-42; WL 95-39-13
(147 Worthing (LINCOLN), SD - NL 43-21-34; WL 96-47-37
(148 Chancellor (TURNER), SD - NL 43-21-32; WL 96-59-02
(149 Harrisburg (LINCOLN), SD - NL 43-25-06; WL 96-42-28
(150 Canton (LINCOLN), SD - NL 43-21-33; WL 96-42-28
(151 Salem (MCCOOK), SD - NL 43-39-58; WL 97-20-53
(152 Centerville (TURNER), SD - NL 43-07-10; WL 96-58-04
(153 Cokato (WRIGHT), MN - NL 45-03-52; WL 94-11-56
(154 Howard Lake (WRIGHT), MN - NL 45-03-03; WL 94-04-12
(155 Waverly (WRIGHT), MN - NL 45-03-04; WL 93-58-22
(156 Delano (WRIGHT), MN - NL 45-01-43; WL 93-52-48
(157 Delano (WRIGHT), MN - NL 45-02-04; WL 93-49-04
(158 Rockford (HENNEPIN), MN - NL 45-05-10; WL 93-43-55

Station Locations

(159 Delano (WRIGHT), MN - NL 45-03-25; WL 93-48-18
 (160 Howard Lake (WRIGHT), MN - NL 45-03-09; WL 94-04-32
 (161 Dassel (MEEKER), MN - NL 45-04-35; WL 94-18-27
 (162 Dassel (MEEKER), MN - NL 45-05-33; WL 94-16-53
 (163 Howard Lake (WRIGHT), MN - NL 44-59-23; WL 94-08-06
 (164 Iron River (BAYFIELD), WI - NL 46-37-08; WL 91-26-56
 (165 Port Wing (BAYFIELD), WI - NL 46-45-37; WL 91-26-51
 (166 Port Wing (BAYFIELD), WI - NL 46-47-22; WL 91-18-01
 (167 Herbster (BAYFIELD), WI - NL 46-50-30; WL 91-12-55
 (168 Bayfield (BAYFIELD), WI - NL 46-50-50; WL 90-56-30
 (169 Bayfield (BAYFIELD), WI - NL 46-48-14; WL 90-51-47
 (170 Cornucopia (BAYFIELD), WI - NL 46-51-00; WL 91-06-13
 (171 Bayfield (BAYFIELD), WI - NL 46-51-38; WL 91-03-46
 (172 Pembina (PEMBINA), ND - NL 48-52-35; WL 97-16-27
 (173 Drayton (PEMBINA), ND - NL 48-38-39; WL 97-16-32
 (174 Drayton (PEMBINA), ND - NL 48-45-36; WL 97-16-17
 (175 Rolla (ROLETTE), ND - NL 48-50-03; WL 99-33-39
 (176 Belcourt (ROLETTE), ND - NL 48-43-07; WL 99-48-39
 (177 Belcourt (ROLETTE), ND - NL 48-46-05; WL 99-40-45
 (178 Rolette (ROLETTE), ND - NL 48-36-11; WL 99-53-06
 (179 Rolette (PIERCE), ND - NL 48-30-32; WL 99-54-23
 (180 Rugby (PIERCE), ND - NL 48-25-45; WL 99-57-05
 (181 Belgrade (STEARNS), MN - NL 45-27-15; WL 94-59-59
 (182 Paynesville (STEARNS), MN - NL 45-25-39; WL 94-48-15
 (183 Paynesville (STEARNS), MN - NL 45-24-49; WL 94-39-39
 (184 Cold Spring (STEARNS), MN - NL 45-25-19; WL 94-25-27
 (185 Richmond (STEARNS), MN - NL 45-24-43; WL 94-32-20
 (186 Monticello (WRIGHT), MN - NL 45-14-47; WL 93-40-54
 (187 Osseo (HENNEPIN), MN - NL 45-09-19; WL 93-31-18
 (188 St Michael (WRIGHT), MN - NL 45-10-27; WL 93-39-16
 (189 Otsego (WRIGHT), MN - NL 45-14-37; WL 93-42-14
 (190 Monticello (WRIGHT), MN - NL 45-16-55; WL 93-47-51
 (191 Clearwater (WRIGHT), MN - NL 45-22-55; WL 94-00-12

Frequency Information

Osakis (DOUGLAS), MN - NL 45-51-13; WL 95-09-01

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

West Union (TODD), MN - NL 45-48-09; WL 95-04-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Detroit Lakes (BECKER), MN - NL 46-50-46; WL 95-47-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frazee (BECKER), MN - NL 46-48-27; WL 95-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Menahga (HUBBARD), MN - NL 46-48-38; WL 95-06-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Menahga (BECKER), MN - NL 46-48-26; WL 95-17-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frazee (BECKER), MN - NL 46-48-25; WL 95-28-42

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Cook (ITASCA), MN - NL 47-42-15; WL 93-12-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Togo (ITASCA), MN - NL 47-49-15; WL 93-11-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Effie (KOOCHICHING), MN - NL 47-56-58; WL 93-28-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Effie (KOOCHICHING), MN - NL 47-58-13; WL 93-35-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Big Falls (KOOCHICHING), MN - NL 48-03-27; WL 93-43-04

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Reynolds (GRAND FORKS), ND - NL 47-44-11; WL 97-04-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Buxton (TRAILL), ND - NL 47-38-04; WL 97-04-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Cummings (TRAILL), ND - NL 47-31-37; WL 97-04-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Hillsboro (TRAILL), ND - NL 47-25-31; WL 97-03-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Grand Forks (GRAND FORKS), ND - NL 47-52-30; WL 97-04-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Margie (KOOCHICHING), MN - NL 48-07-37; WL 93-53-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Margie (KOOCHICHING), MN - NL 48-09-12; WL 93-54-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Margie (KOOCHICHING), MN - NL 48-10-07; WL 93-55-43

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Big Falls (KOOCHICHING), MN - NL 48-10-49; WL 94-06-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Big Falls (KOOCHICHING), MN - NL 48-12-23; WL 94-18-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Middlebro (ROSEAU), MN - NL 48-59-28; WL 95-32-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Warroad (ROSEAU), MN - NL 48-57-31; WL 95-26-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Salol (ROSEAU), MN - NL 48-54-03; WL 95-26-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Warroad (ROSEAU), MN - NL 48-47-06; WL 95-25-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Williams (LAKE OF THE WOODS), MN - NL 48-46-12; WL 95-05-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Warroad (ROSEAU), MN - NL 48-45-43; WL 95-15-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Williams (LAKE OF THE WOODS), MN - NL 48-40-35; WL 94-57-04

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Williams (LAKE OF THE WOODS), MN - NL 48-37-51; WL 94-53-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Baudette (LAKE OF THE WOODS), MN - NL 48-33-26; WL 94-47-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Baudette (LAKE OF THE WOODS), MN - NL 48-22-56; WL 94-33-34

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Waskish (KOOCHICHING), MN - NL 48-16-25; WL 94-22-55

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Waskish (BELTRAMI), MN - NL 48-19-51; WL 94-28-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Effie (KOOCHICHING), MN - NL 47-55-54; WL 93-17-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Effie (KOOCHICHING), MN - NL 47-57-03; WL 93-24-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Baudette (LAKE OF THE WOODS), MN - NL 48-30-42; WL 94-43-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Warroad (ROSEAU), MN - NL 48-53-31; WL 95-26-19

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Baudette (LAKE OF THE WOODS), MN - NL 48-26-23; WL 94-37-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Nashwauk (ITASCA), MN - NL 47-36-18; WL 93-11-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Hibbing (ST LOUIS), MN - NL 47-31-53; WL 93-01-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Chisholm (ST LOUIS), MN - NL 47-28-53; WL 92-54-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Bessemer (GOGEBIC), MI - NL 46-26-56; WL 90-05-17

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Bessemer (GOGEBIC), MI - NL 46-26-56; WL 90-05-17

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Fall Creek (EAU CLAIRE), WI - NL 44-48-50; WL 91-13-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Fall Creek (EAU CLAIRE), WI - NL 44-45-40; WL 91-15-32

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Agusta (EAU CLAIRE), WI - NL 44-38-51; WL 91-01-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Humbird (JACKSON), WI - NL 44-30-35; WL 90-53-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Hixton (JACKSON), WI - NL 44-23-31; WL 90-59-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Arpin (WOOD), WI - NL 44-43-45; WL 89-59-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Rice Lake (EAU CLAIRE), WI - NL 45-33-07; WL 91-38-50

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Stanley (EAU CLAIRE), WI - NL 44-45-45; WL 90-56-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Agusta (EAU CLAIRE), WI - NL 44-48-02; WL 91-07-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Willard (CLARK), WI - NL 44-44-47; WL 90-50-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Willard (CLARK), WI - NL 44-43-03; WL 90-41-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Greenwood (CLARK), WI - NL 44-41-14; WL 90-32-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Spencer (CLARK), WI - NL 44-39-53; WL 90-23-50

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Marshfield (WOOD), WI - NL 44-37-54; WL 90-16-42

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 kW (ERP)	

Rice Lake (BARRON), WI - NL 45-29-55; WL 91-42-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Marshfield (EAU CLAIRE), WI - NL 44-35-16; WL 90-08-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Fall Creek (EAU CLAIRE), WI - NL 44-45-59; WL 91-16-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Agusta (EAU CLAIRE), WI - NL 44-41-24; WL 91-09-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Agusta (EAU CLAIRE), WI - NL 44-40-28; WL 91-07-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Humbird (CLARK), WI - NL 44-35-45; WL 90-54-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Alma Center (JACKSON), WI - NL 44-26-08; WL 90-55-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Merrillan (JACKSON), WI - NL 44-23-09; WL 90-49-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Black River Falls (JACKSON), WI - NL 44-18-18; WL 90-49-10

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Hixton (JACKSON), WI - NL 44-23-04; WL 91-00-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Taylor (JACKSON), WI - NL 44-19-34; WL 91-07-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Birchwood (BARRON), WI - NL 45-38-17; WL 91-36-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Eau Claire (EAU CLAIRE), WI - NL 44-50-29; WL 91-23-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Fall Creek (EAU CLAIRE), WI - NL 44-48-03; WL 91-22-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Marenisco (ONTONAGON), MI - NL 46-35-34; WL 89-34-41

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Ironwood (GOGEBIC), MI - NL 46-26-23; WL 90-08-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Marenisco (GOGEBIC), MI - NL 46-21-37; WL 89-30-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Wakefield (GOGEBIC), MI - NL 46-30-13; WL 89-52-45

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Wakefield (GOGEBIC), MI - NL 46-32-53; WL 89-45-09

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Wakefield (GOGEBIC), MI - NL 46-26-29; WL 89-49-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Ramsay (GOGEBIC), MI - NL 46-27-23; WL 89-59-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Marenisco (GOGEBIC), MI - NL 46-23-47; WL 89-41-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

North Branch (CHISAGO), MN - NL 45-27-43; WL 92-54-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Pine City (PINE), MN - NL 45-46-37; WL 92-50-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Pine City (PINE), MN - NL 45-54-56; WL 92-48-58

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Chisago City (CHISAGO), MN - NL 45-20-48; WL 92-55-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Hugo (WASHINGTON), MN - NL 45-12-24; WL 92-55-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Hugo (WASHINGTON), MN - NL 45-09-12; WL 92-54-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Stillwater (WASHINGTON), MN - NL 45-04-20; WL 92-54-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Scandia (WASHINGTON), MN - NL 45-14-04; WL 92-53-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Pine City (PINE), MN - NL 45-53-22; WL 92-49-16

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Lake Crystal (BLUE EARTH), MN - NL 44-03-55; WL 94-19-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Mankato (BLUE EARTH), MN - NL 44-05-34; WL 94-06-34

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Mankato (BLUE EARTH), MN - NL 44-06-06; WL 94-03-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Lake Crystal (BLUE EARTH), MN - NL 44-05-53; WL 94-12-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Lake Crystal (BLUE EARTH), MN - NL 44-05-39; WL 94-14-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Madelia (WATONWAN), MN - NL 44-03-01; WL 94-23-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Faribault (RICE), MN - NL 44-18-06; WL 93-13-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Kenyon (GOODHUE), MN - NL 44-16-43; WL 92-26-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Zumbrota (GOODHUE), MN - NL 44-16-55; WL 92-56-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Pine Island (GOODHUE), MN - NL 44-12-31; WL 92-39-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Zumbro Falls (WABASHA), MN - NL 44-17-24; WL 95-25-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Lake City (WABASHA), MN - NL 44-26-40; WL 92-17-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Red Wing (GOODHUE), MN - NL 44-30-30; WL 92-21-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Zumbrota (GOODHUE), MN - NL 44-17-35; WL 92-41-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Wanamingo (GOODHUE), MN - NL 44-17-54; WL 92-47-16

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Kenyon (RICE), MN - NL 44-17-54; WL 93-03-42

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Red Wing (GOODHUE), MN - NL 44-32-53; WL 92-25-42

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Millville (WABASHA), MN - NL 44-16-41; WL 92-19-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Mazeppa (WABASHA), MN - NL 44-16-30; WL 92-32-08

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Carver (CARVER), MN - NL 44-45-39; WL 93-38-43

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Cologne (CARVER), MN - NL 44-45-12; WL 93-49-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Gaylord (SIBLEY), MN - NL 44-33-17; WL 94-11-57

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Winthrop (SIBLEY), MN - NL 44-31-55; WL 94-21-42

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Franklin (RENVILLE), MN - NL 44-31-00; WL 94-49-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Lafayette (NICOLLET), MN - NL 44-26-28; WL 94-23-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

New Ulm (NICOLLET), MN - NL 44-21-21; WL 94-28-01

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Sacred Heart (RENVILLE), MN - NL 44-47-15; WL 95-21-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Marshall (LYON), MN - NL 44-28-20; WL 95-40-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Cottonwood (LYON), MN - NL 44-35-13; WL 95-39-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Gibbon (SIBLEY), MN - NL 44-30-50; WL 94-31-38

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

New Ulm (NICOLLET), MN - NL 44-22-48; WL 94-28-20

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Fairfax (RENVILLE), MN - NL 44-30-53; WL 94-41-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Hamburg (CARVER), MN - NL 44-44-08; WL 93-57-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Green Isle (SIBLEY), MN - NL 44-40-32; WL 94-00-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Arlington (SIBLEY), MN - NL 44-36-50; WL 94-04-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Arlington (SIBLEY), MN - NL 44-35-54; WL 94-05-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Gaylord (SIBLEY), MN - NL 44-32-56; WL 94-13-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Hanley Falls (YELLOW MEDICINE), MN - NL 44-40-25; WL 95-36-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Granite Falls (CHIPPEWA), MN - NL 44-47-44; WL 95-28-00

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Sacred Heart (RENVILLE), MN - NL 44-46-28; WL 95-20-25

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Renville (RENVILLE), MN - NL 44-48-12; WL 95-13-11

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Danube (RENVILLE), MN - NL 44-48-13; WL 95-06-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Davis (TURNER), SD - NL 44-13-47; WL 96-58-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Canistota (MCCOOK), SD - NL 43-36-06; WL 97-17-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Salem (MCCOOK), SD - NL 43-42-09; WL 97-22-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Ruthon (PIPESTONE), MN - NL 44-10-29; WL 96-09-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Lake Benton (LINCOLN), MN - NL 44-17-05; WL 96-18-07

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Currie (MURRAY), MN - NL 44-03-52; WL 95-39-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Currie (MURRAY), MN - NL 44-04-49; WL 95-39-50

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Holland (PIPESTONE), MN - NL 44-05-45; WL 96-06-16

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Lake Benton (LINCOLN), MN - NL 44-13-34; WL 96-20-35

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Lake Benton (LINCOLN), MN - NL 44-14-21; WL 96-15-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Lake Benton (LINCOLN), MN - NL 44-15-23; WL 96-20-35

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Lake Benton (LINCOLN), MN - NL 44-19-39; WL 96-24-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Elkton (LINCOLN), MN - NL 44-23-11; WL 96-25-34

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Slayton (MURRAY), MN - NL 43-58-42; WL 95-40-31

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Tracy (MURRAY), MN - NL 44-11-42; WL 95-39-13

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Worthing (LINCOLN), SD - NL 43-21-34; WL 96-47-37

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Chancellor (TURNER), SD - NL 43-21-32; WL 96-59-02

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Harrisburg (LINCOLN), SD - NL 43-25-06; WL 96-42-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Canton (LINCOLN), SD - NL 43-21-33; WL 96-42-28

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Salem (MCCOOK), SD - NL 43-39-58; WL 97-20-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Centerville (TURNER), SD - NL 43-07-10; WL 96-58-04

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Cokato (WRIGHT), MN - NL 45-03-52; WL 94-11-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Howard Lake (WRIGHT), MN - NL 45-03-03; WL 94-04-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Waverly (WRIGHT), MN - NL 45-03-04; WL 93-58-22

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Delano (WRIGHT), MN - NL 45-01-43; WL 93-52-48

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Delano (WRIGHT), MN - NL 45-02-04; WL 93-49-04

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Rockford (HENNEPIN), MN - NL 45-05-10; WL 93-43-55

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Delano (WRIGHT), MN - NL 45-03-25; WL 93-48-18

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Howard Lake (WRIGHT), MN - NL 45-03-09; WL 94-04-32

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Dassel (MEEKER), MN - NL 45-04-35; WL 94-18-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Dassel (MEEKER), MN - NL 45-05-33; WL 94-16-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Howard Lake (WRIGHT), MN - NL 44-59-23; WL 94-08-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Iron River (BAYFIELD), WI - NL 46-37-08; WL 91-26-56

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Port Wing (BAYFIELD), WI - NL 46-45-37; WL 91-26-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Port Wing (BAYFIELD), WI - NL 46-47-22; WL 91-18-01

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MX A	486 W (ERP)	

Herbster (BAYFIELD), WI - NL 46-50-30; WL 91-12-55

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Bayfield (BAYFIELD), WI - NL 46-50-50; WL 90-56-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Bayfield (BAYFIELD), WI - NL 46-48-14; WL 90-51-47

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Cornucopia (BAYFIELD), WI - NL 46-51-00; WL 91-06-13

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Bayfield (BAYFIELD), WI - NL 46-51-38; WL 91-03-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Pembina (PEMBINA), ND - NL 48-52-35; WL 97-16-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Drayton (PEMBINA), ND - NL 48-38-39; WL 97-16-32

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Drayton (PEMBINA), ND - NL 48-45-36; WL 97-16-17

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Rolla (ROLETTE), ND - NL 48-50-03; WL 99-33-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Belcourt (ROLETTE), ND - NL 48-43-07; WL 99-48-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Belcourt (ROLETTE), ND - NL 48-46-05; WL 99-40-45

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Rolette (ROLETTE), ND - NL 48-36-11; WL 99-53-06

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Rolette (PIERCE), ND - NL 48-30-32; WL 99-54-23

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Rugby (PIERCE), ND - NL 48-25-45; WL 99-57-05

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Belgrade (STEARNS), MN - NL 45-27-15; WL 94-59-59

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Paynesville (STEARNS), MN - NL 45-25-39; WL 94-48-15

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Paynesville (STEARNS), MN - NL 45-24-49; WL 94-39-39

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Cold Spring (STEARNS), MN - NL 45-25-19; WL 94-25-27

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Richmond (STEARNS), MN - NL 45-24-43; WL 94-32-20

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Monticello (WRIGHT), MN - NL 45-14-47; WL 93-40-54

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Osseo (HENNEPIN), MN - NL 45-09-19; WL 93-31-18

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

St Michael (WRIGHT), MN - NL 45-10-27; WL 93-39-16

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Otsego (WRIGHT), MN - NL 45-14-37; WL 93-42-14

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Frequency Information

Monticello (WRIGHT), MN - NL 45-16-55; WL 93-47-51

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Clearwater (WRIGHT), MN - NL 45-22-55; WL 94-00-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
24450-24650 MHz	FX	190MFXN	486 W (ERP)	

Special Conditions:

- (1) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) Phoenix Air Unmanned, LLC provide a map of operating locations for deconfliction and notification prior to operations to Mr. Rodney Murphy, rodney.murphy@faa.gov.
- (4) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.