

# ***MNDNR FIXED WING TANKER INBRIEF***



# **WELCOME / INTRODUCTIONS**

**ATGS's**

**Pilots**

**SEMG's**

**Base personnel**

**MIFC staff**

**Others**

# ORGANIZATIONAL STRUCTURE



# MNDNR Divisions



**Forestry**

**Fish and Wildlife**

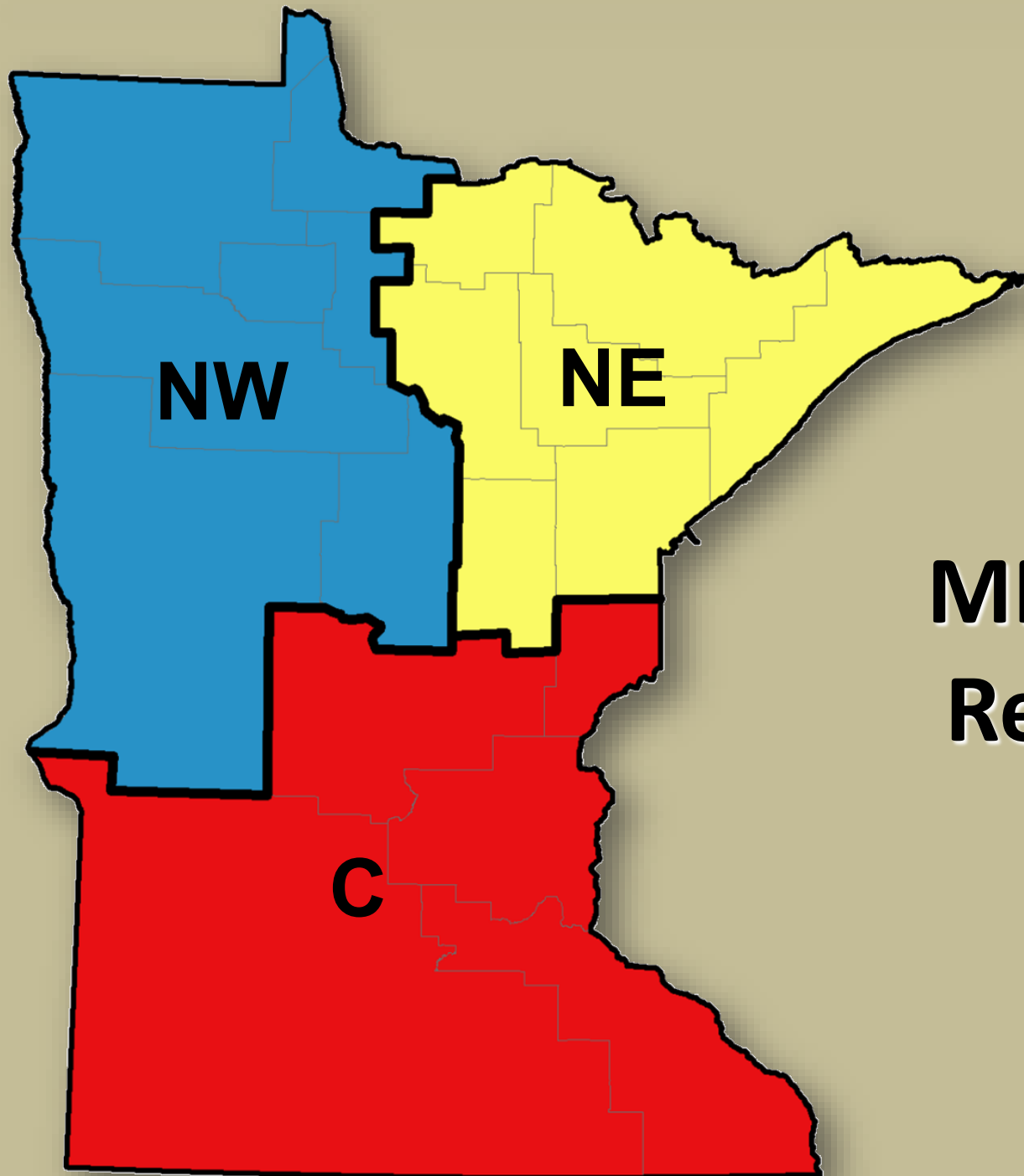
**Parks and Trails**

**Ecological Resources and Waters**

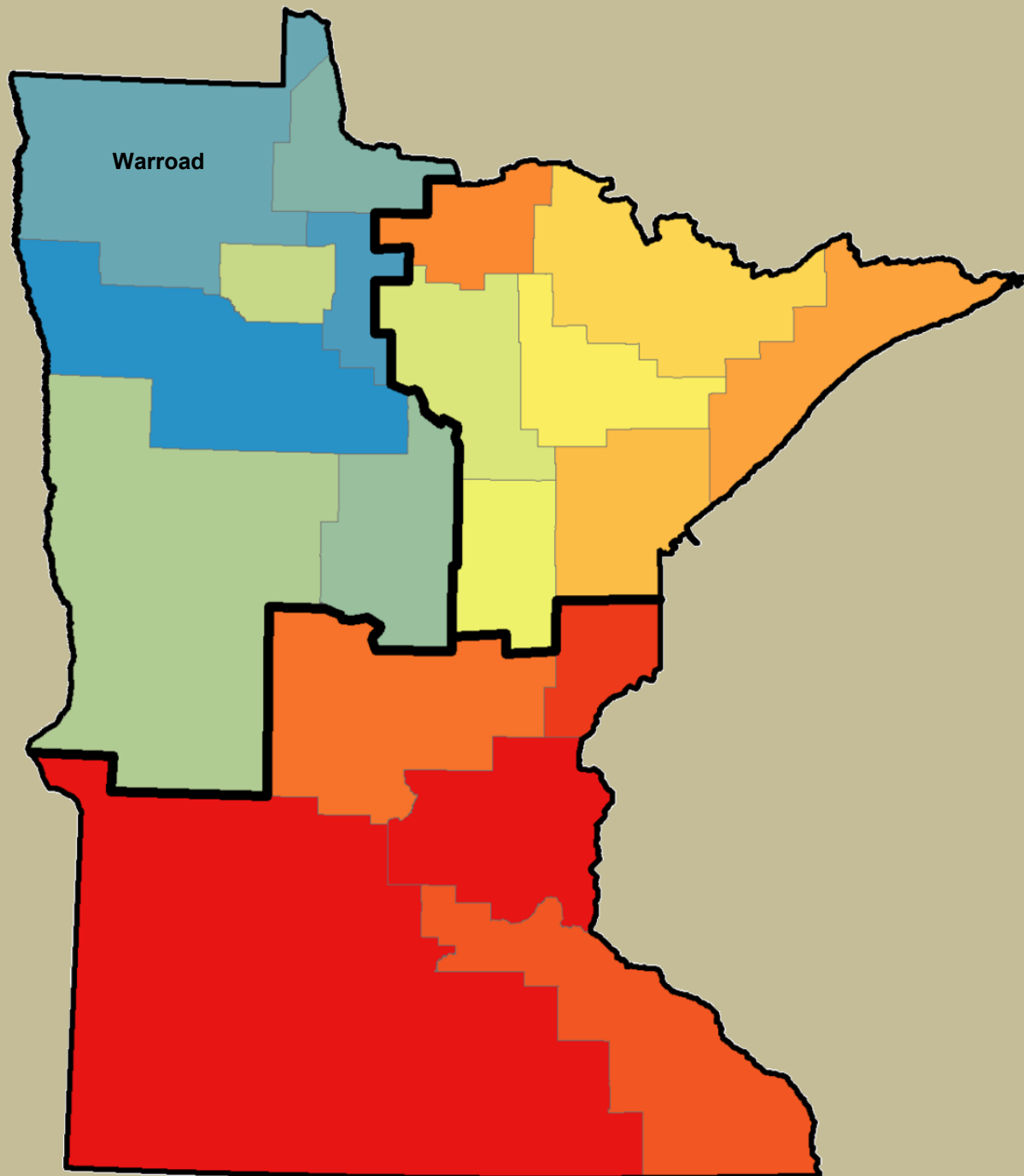
**Enforcement**

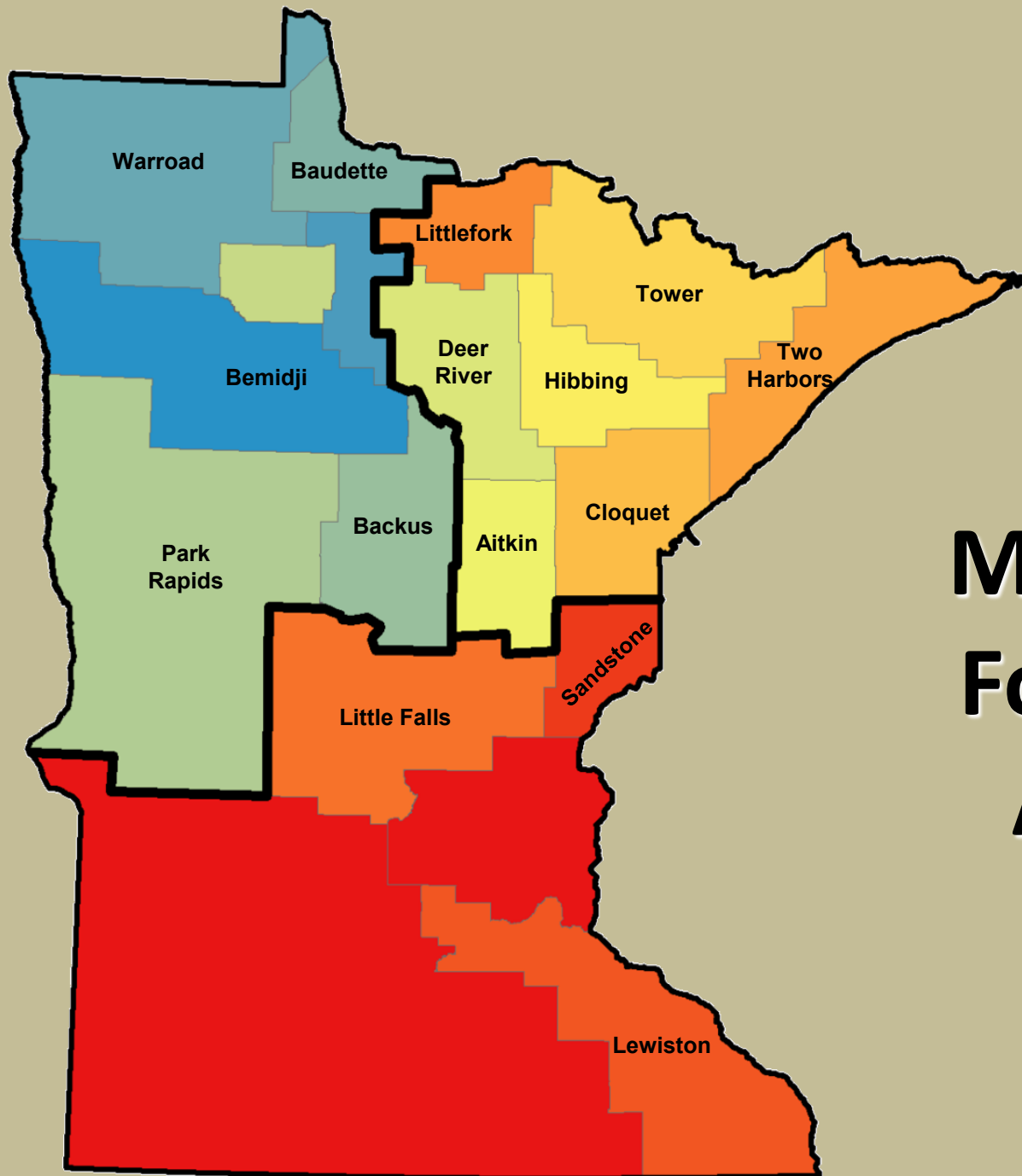
**Lands and Minerals**





**MN DNR  
Regions**





# MN DNR Forestry Areas

# MIFC – MNICS AGENCIES



**DNR**



**USFS**



**BIA**



**USFWS**



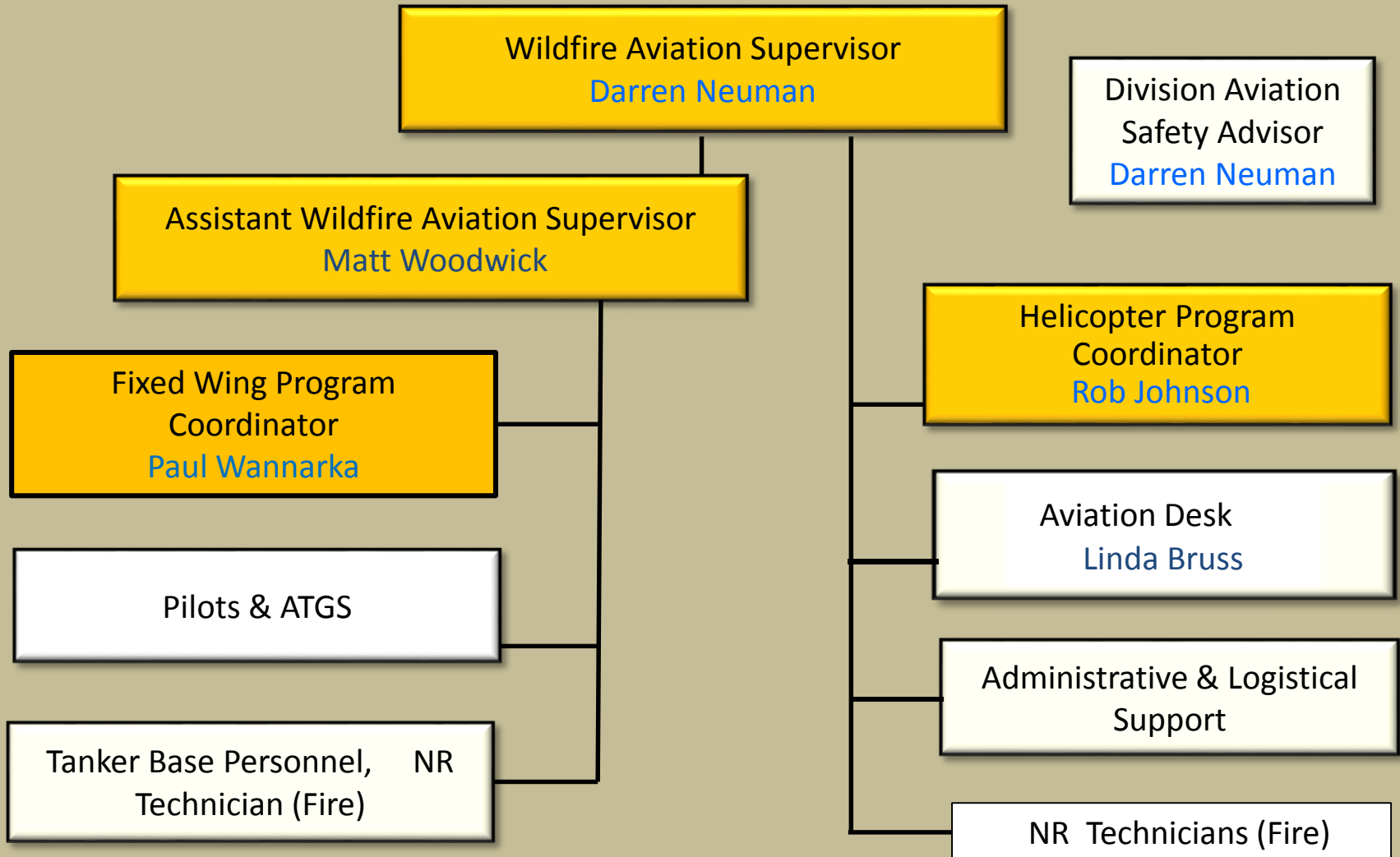
**HSEM**



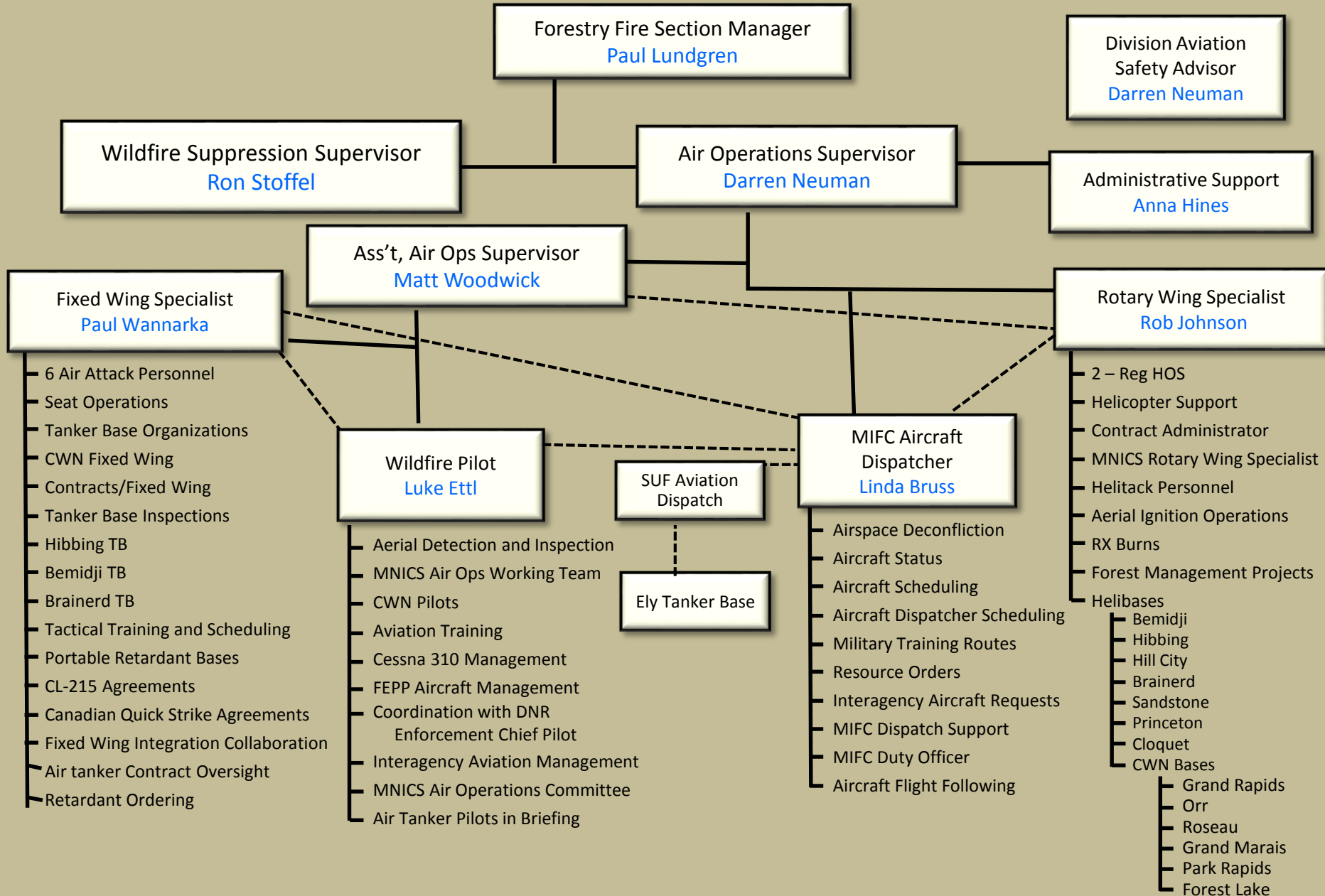
**NPS**

# MN DNR Forestry

## Air Operations

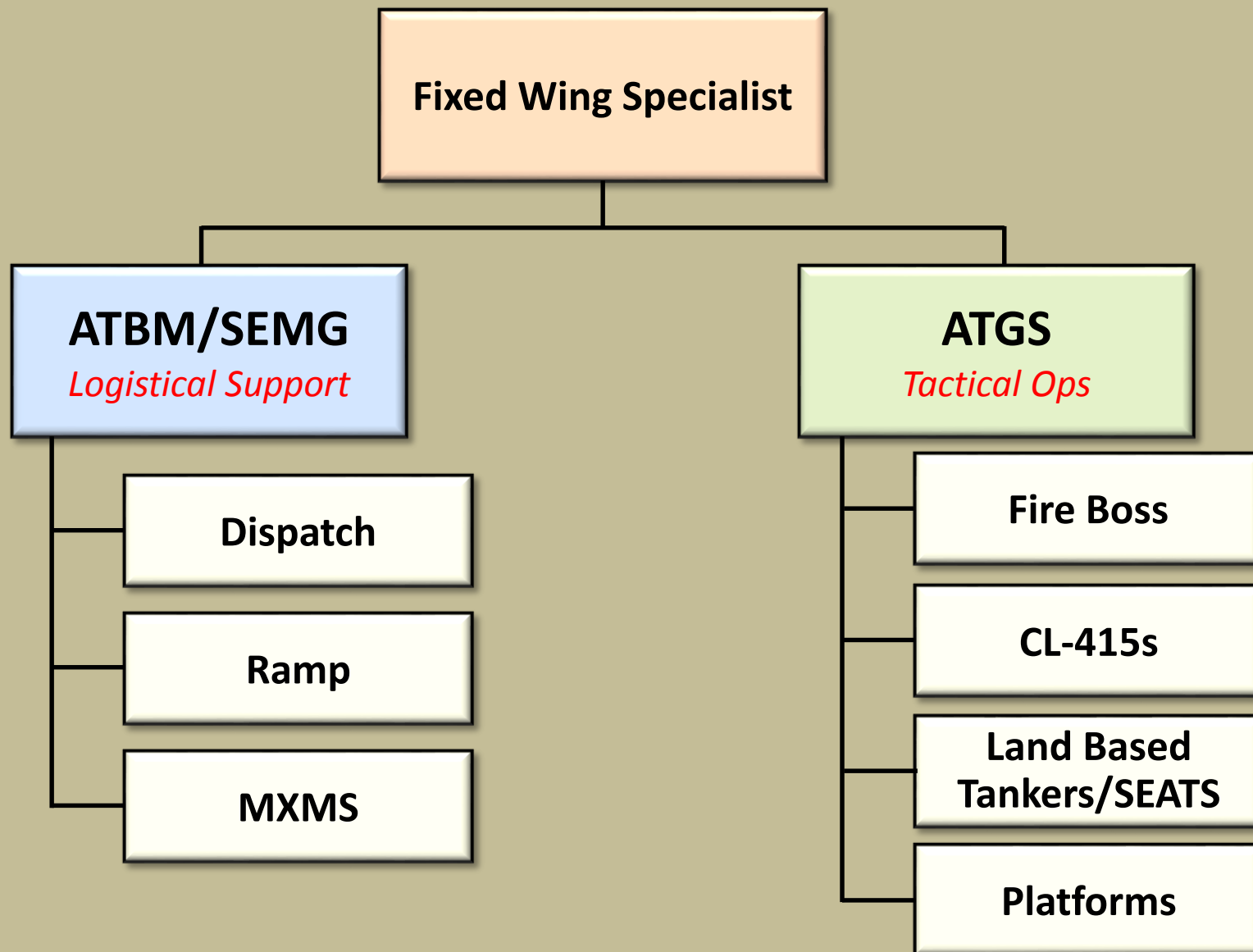


# MIFC – DNR Air Operations



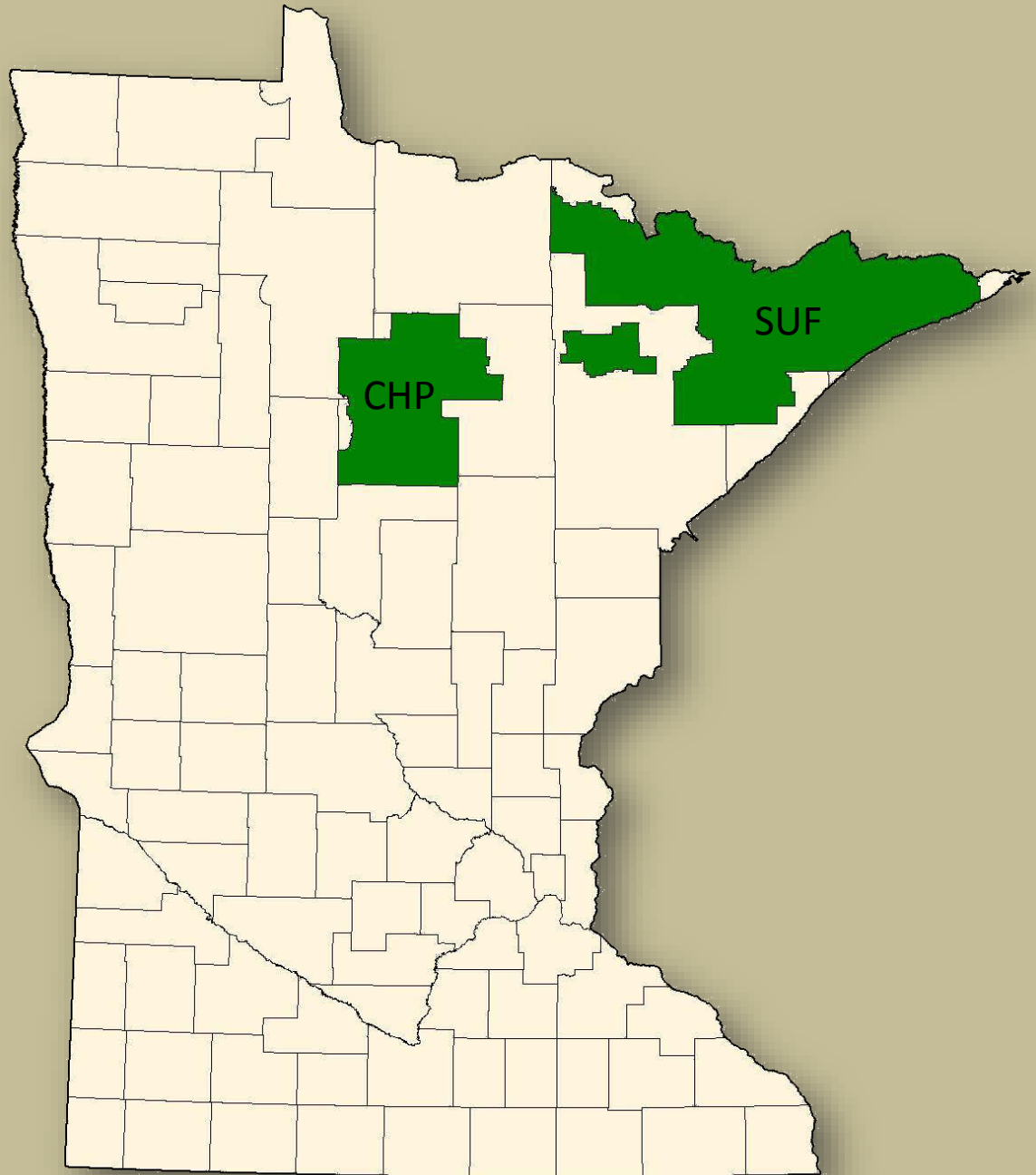


# Tanker Base Organization



# Federal Agencies

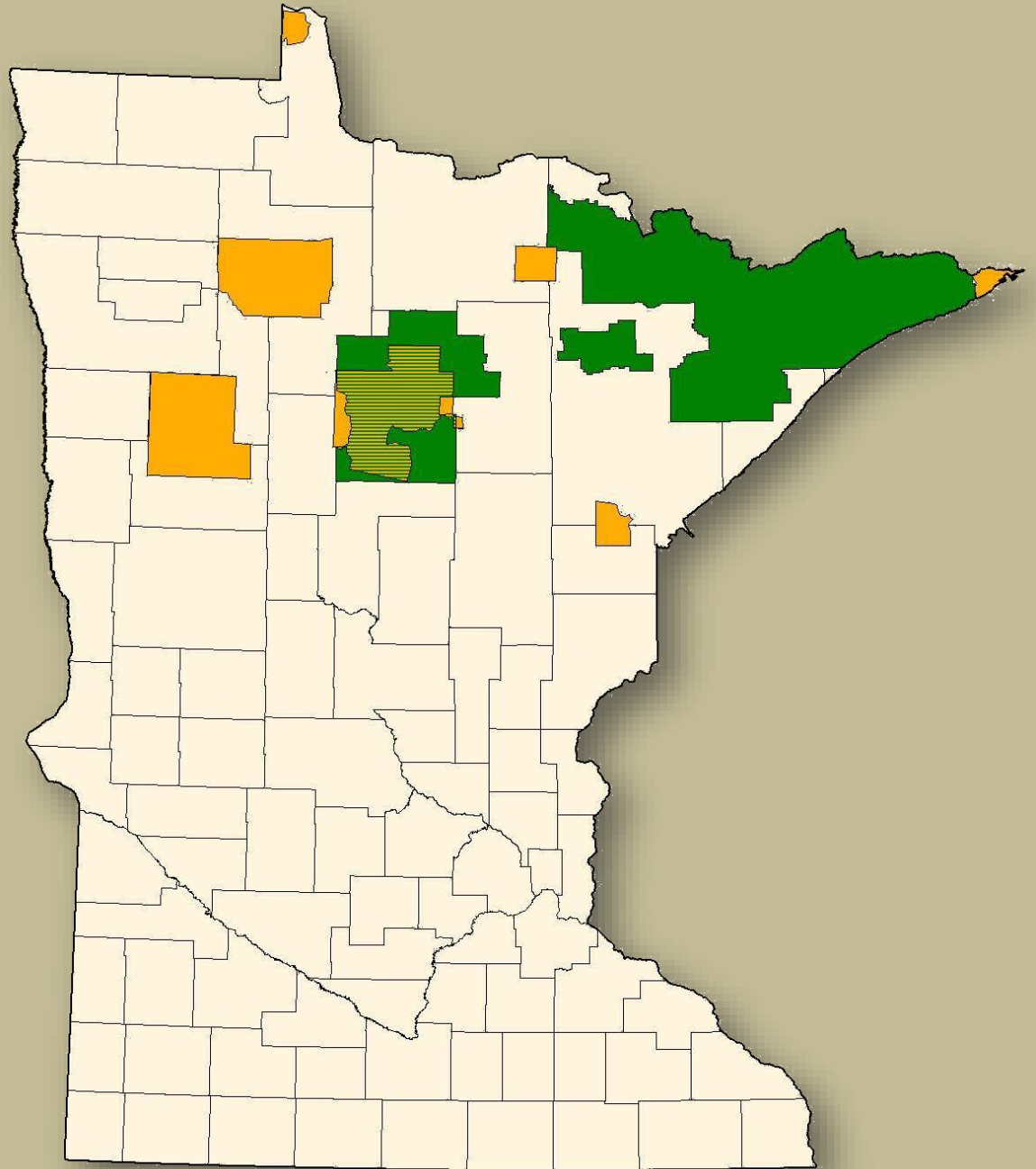
 USFS



# Federal Agencies

 USFS

 BIA

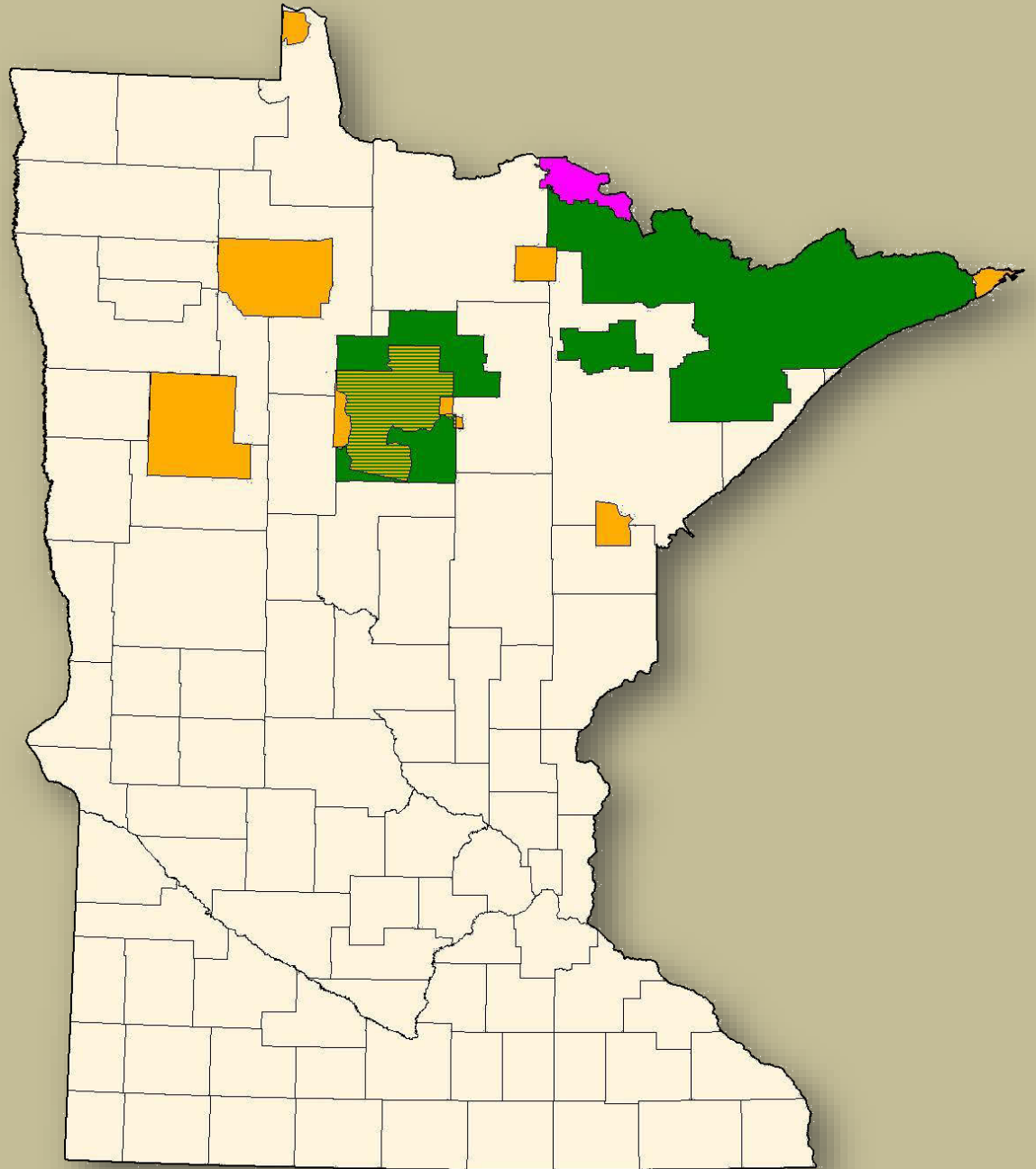


# Federal Agencies

 **USFS**

 **BIA**

 **NPS**



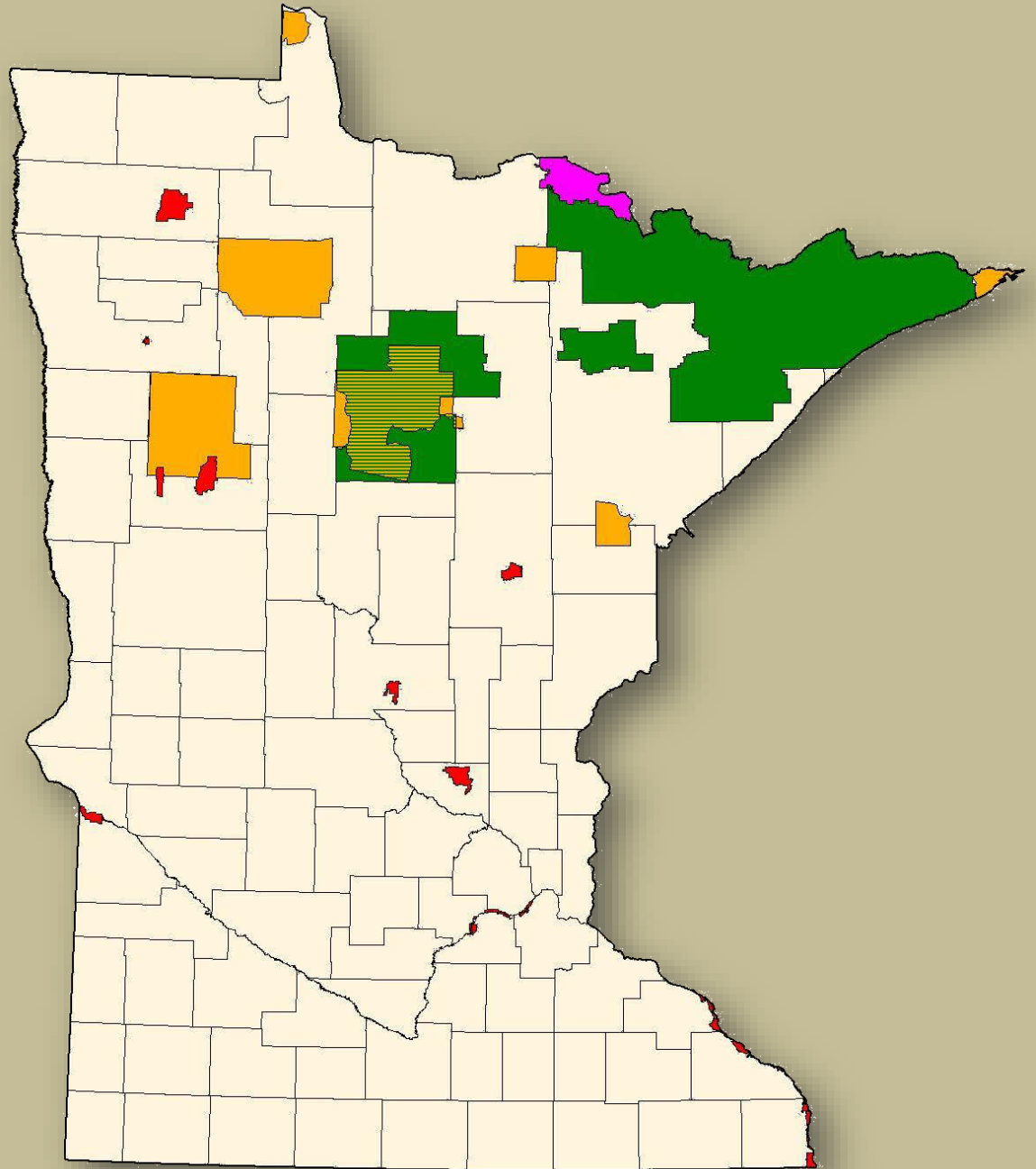
# Federal Agencies

 USFS

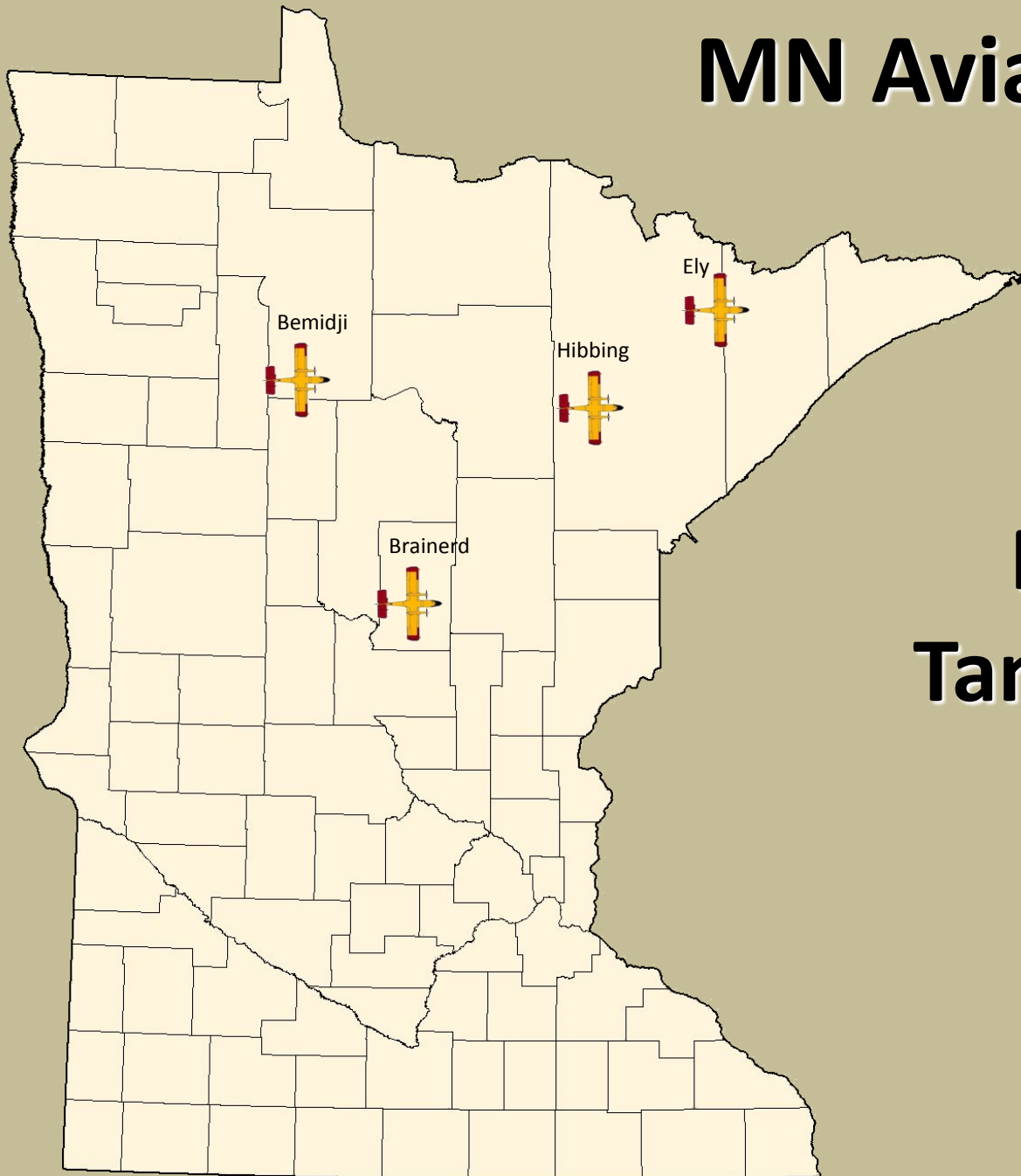
 BIA

 NPS

 FWS



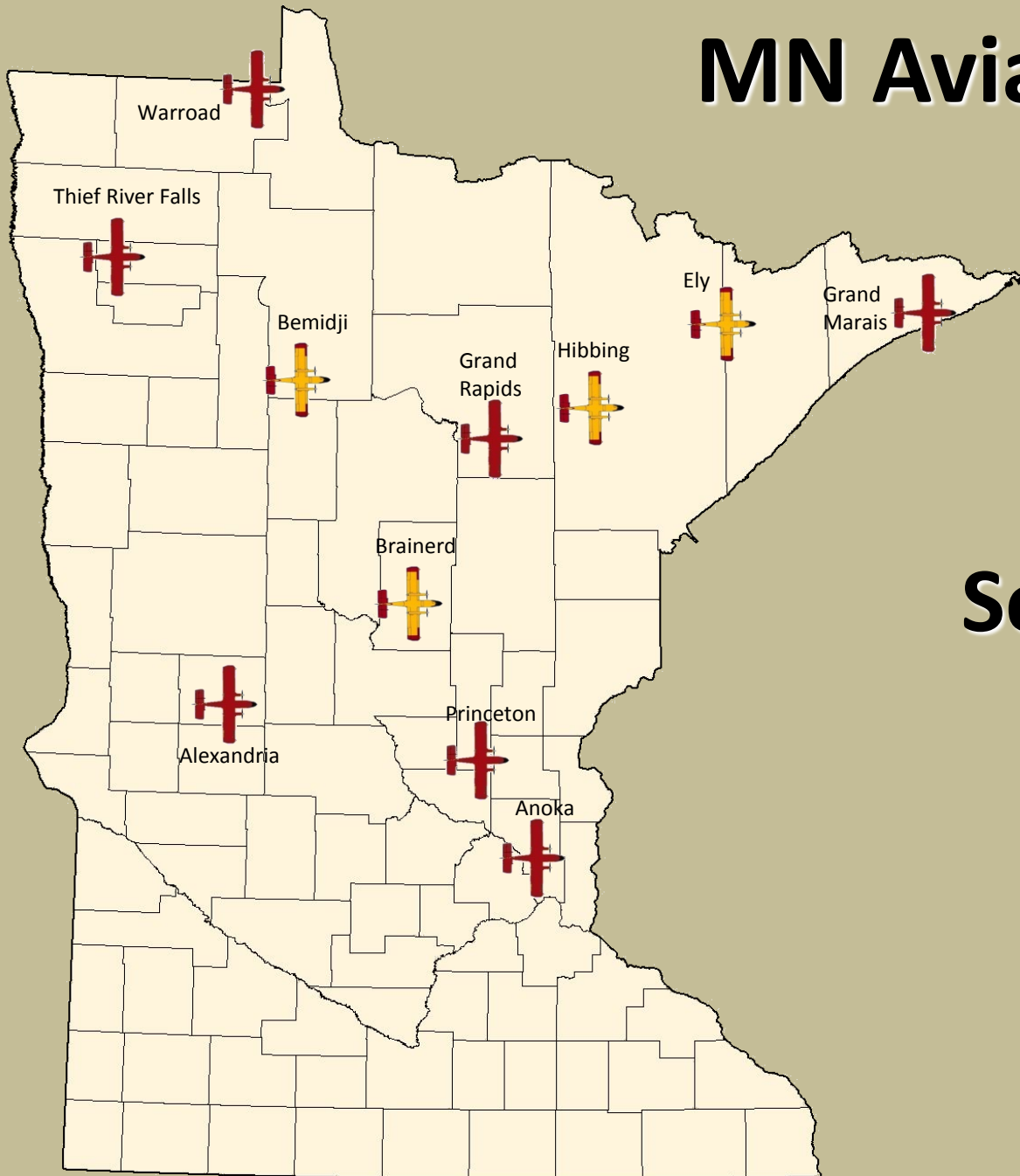
# MN Aviation Bases



**Primary  
Tanker Bases**

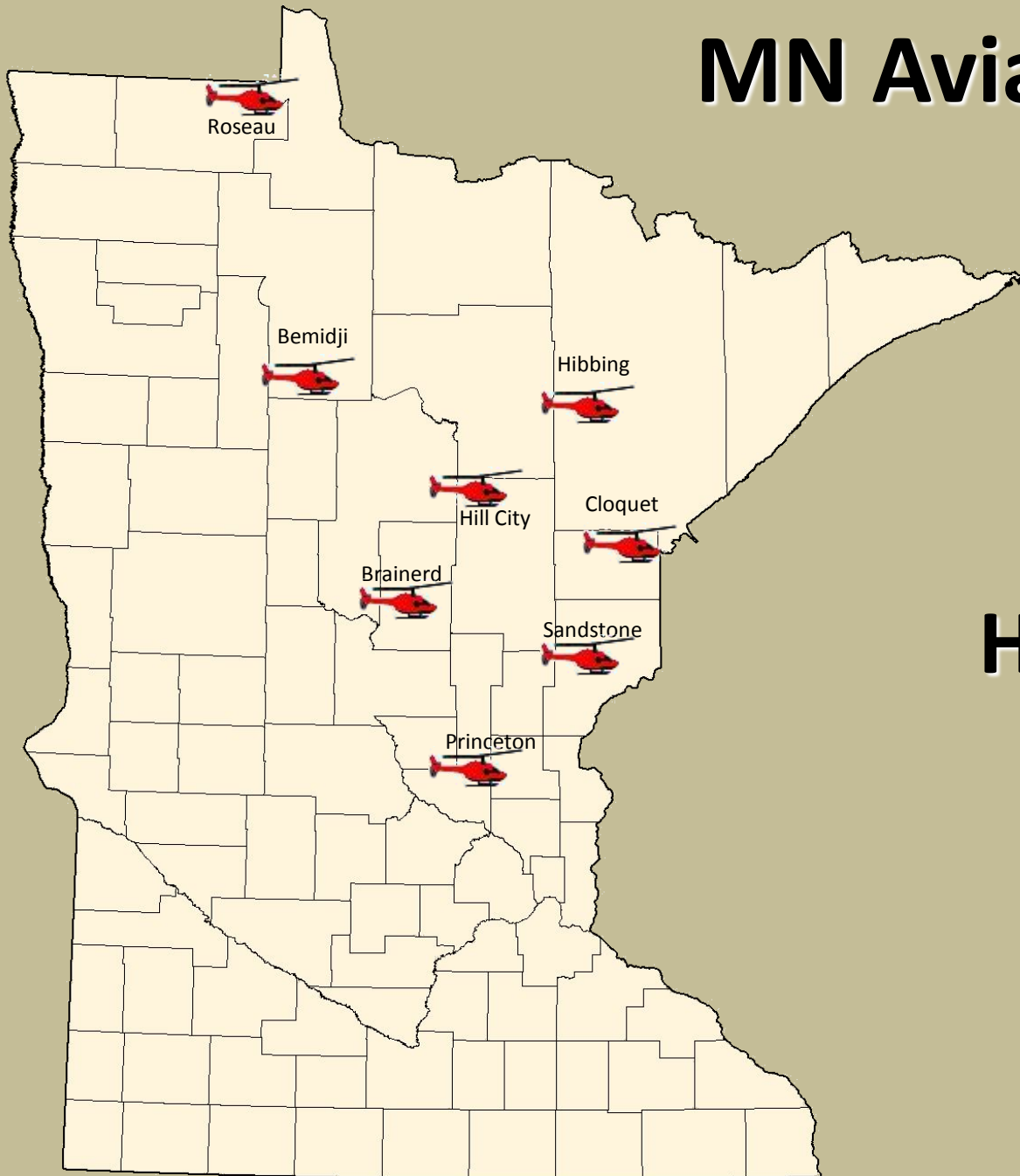


# MN Aviation Bases



**Secondary  
Bases**

# MN Aviation Bases



## Helibases



# BASIC EXPECTATIONS

# State Contract Duty Day

Could be anytime from ½ hour prior to sunrise to ½ hour after sunset-14 hour maximum.

Determined by Fire Center according to staffing guidelines.

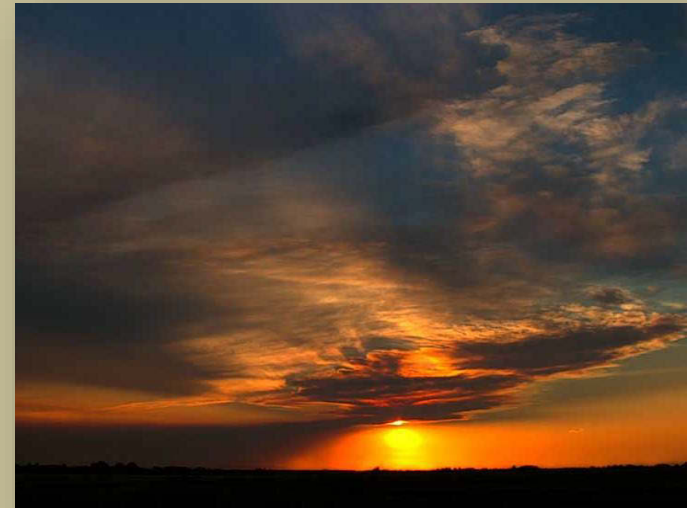
- Pre-flight(duty day starts) normally at 0930,flight ready at 10:00

No Extended Standby in MN.  
Extended Standby paid when R.O.N out of State.



# BIA-Bemidji Contract Duty Day

- BIA will set the duty day for BIA aircraft
  - Pre-flight inspection will be done at start of duty day (normally 10:00am).
  - Morning briefing starts after pre-flight approximately half hour into the duty day-normally 10:30am
  - Extended standby after 9 hours of duty time
  - Off base lunch determined by BIA staff according to contract





# Flight and Duty Limitations

14 hour duty day / 10 hours rest

8 hours max daily flight time  
**(track individual fire times separate)**



42 hours max on 6 day period – day off (36/6)

2 days off in every 14 (minimum)



# Logistics

Pilots/crews are responsible for own food, lodging, transportation, etc...



ATBM/SEMG may be willing to assist with logistical needs or answer base related questions

# Behaviors

**Harassment, sexual harassment  
or physical violence of any kind  
will NOT be tolerated**

# Dispatch Procedures

## Paper Dispatch

- Tactical Aircraft Request form
- Landview printout
- Expected to be launched no more than 15 min. after receipt of dispatch



# Paper Dispatch

## Tactical Aircraft Request Form

### TACTICAL AIRCRAFT REQUEST

DATE:	TIME:	PHONE:
REQUESTING PERSON / LOCATION:		AGENCY:
AIRCRAFT REQUESTED: # Air Tankers _____ # Helicopters _____ Other _____		
GENERAL LOCATION:		
LEGAL DESCRIPTION: County _____		
FORTY: _____ SEC: _____ TWN: _____ RGN: _____		
LAT (DM):		LONG (DM):
AIR CONTACT:	A/A FREQUENCY:	ZONE:
GROUND CONTACT:	A/G FREQUENCY:	ZONE:
OTHER AIRCRAFT & HAZARDS:		
FIRE SIZE: _____ FUEL TYPE: _____		
VALUES THREATENED: _____		
BEARING: (AZIMUTH / DEGREES) _____		
FROM: _____		DISTANCE: _____ (NM)
MTR/SUA: ( ) Yes ( ) No		TFR: ( ) Yes ( ) No
COMMENTS:		RELOAD BASE:

TRANSPONDER CODE

1255

LANDING LIGHTS

ON

# Paper Dispatch

Landview  
printout

**W Landview Where Window - htb-elo map.lvs**

File Edit View GPS DRS Help

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Current Location in NAD 83

**UTM Zone 15**

Easting Northing

451478 5251444

**Latitude Longitude**

Northing Easting

DMS 47 24 52.7 93 38 35.6

DD 47.41464 -93.64322

DM 47 24.879 93 38.593

**Display Radius in Miles**

1.05

Base Point

☒ On ☐ Off

Azimuth Distance in Miles

272.78 37.94

Set BasePoint Goto BasePoint

Current Location's PLS Description

**PLS**

County Itasca

Township 57

Range 26

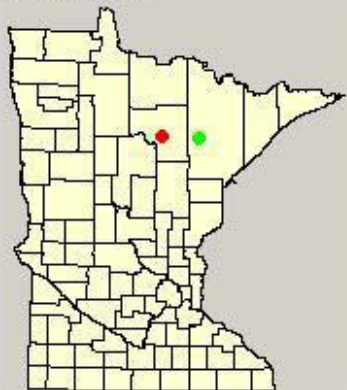
Section 21

☒ Forty 11 or NE of NE

Gov't Lot 1

Direction ☒ West ☐ East

Current Location



Nearest Five: Lakes

Search / Find in List Add Point to User's List

Name	Direction	Distance	DOW
Otter	South West	0.13	31060800
Crane	North East	0.37	31060600
Green	North West	0.86	31060700
Amen	North East	0.99	31059700
Little Moose	South West	1.07	31061000

**Lakes**

Wizard Move Display Window Print Exit



# PPE

Required during flight:  
SEATS and FIREBOSS

- Flight Helmet
- Nomex flight suits
- Leather Boots
- Gloves (Nomex)
- PFD-FireBoss
- Other aircraft as per contract





# Alert Status

**STATE CONTRACT** - Will flex depending on need

## **1) Full Alert**

- On base and ready for immediate dispatch

## **2) 30 min. call back**

- At base within 30 min. after being contacted

## **3) 1hr.,2hr. etc. callback**

- At base within the specified time after contact

- Must be contactable at all times during the duty day

# Alert Status

## Off base lunch:

**State contract** - To be assessed and approved at the discretion of the ATBM and the ATGS. Inform the ATBM/SEMG and ATGS when leaving. Must remain contactable.

**BIA aircraft**-as per contract and determined by BIA staff

Off base lunch on the State contract **will not be common** during spring fire season when one hour fuels are cured. **Plan to have lunch on base most days.**

# Ramp Procedures

All aircraft movements, operations, maintenance and parking on the ramp to be coordinated with the Ramp Manager.



Vehicle and foot traffic on the ramp to be coordinated through the base.

**Ramp frequency: 120.125**

# Fuel / Fueling

Long dispatches may require topping off with additional fuel (GLFFC Partners-MB, Ont., WI, MI)

Contact the FBO directly or the Tanker Base to request fuel if not self sufficient.

State employees will not directly participate in field fueling operations.

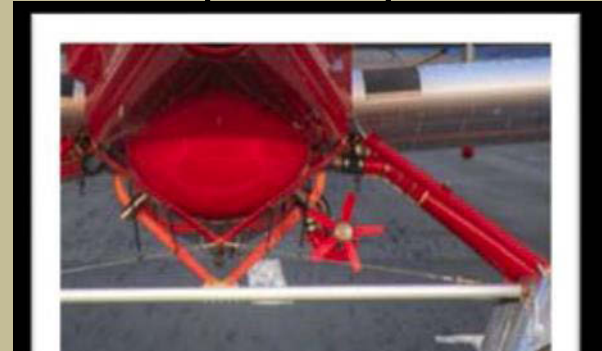


# Retardant/Firelce

- Retardant and Firelce gel are both available
- Unless retardant is specifically requested, Firelce gel will be used
- Cold temperature operations
  - Above 40 degrees Fahrenheit-**Firelce**
  - Below 40 degrees Fahrenheit-**Retardant**

# Pay's Aerial Mixing System

- Liquid Water Enhancer Blazetamer 380 can be mixed airborne with Pay's system installed on FireBoss (clear drop-no dye).
- FireBoss' with Pay's System may depart empty or be loaded with water, retardant, or Firelce gel at the agency's discretion. This should be determined pre-mission or start of the day.
- In most cases, the FireBoss will be loaded upon departure.



# Retardant/Firelce

## Loading

### SEATS/FIREBOSS

As per standard SEAT ops . Hot loading permitted.

### TYPE 1 & 2

Hot loading not permitted.

Simultaneous loading and fueling **NOT permitted.**





# Retardant/Firelce

## Drops

Coverage level will be specified by ATGS.

No retardant or gel within 300' of streams, ponds and lakes.

Cleared in @ 1000 AGL for recon and target description





# Retardant/Firelce

## Drops

*Target description to include:*

- Coverage level
- Objective
- Known hazards
- Location of drop
- Start and end point,  
or portion of load
- Low level clearance
- Exit instructions



# Retardant/Firelce

## Drop Evaluation

Load placement  
-Line, start/stop  
Drift-left or right  
Coverage



Load and return or return and hold

# JETTISON AREAS

- List of 10 approved jettison areas included in pilot briefing pkt.
- Each has a Lat/Long.
- Some have a descriptive advisory.
- Some have aerial photos
- Recommend entering as waypoints-GPS or iPad

WARROAD JETTISON AREA
Describe the jettison area establish for the base: Lat: 48:56.140 Long: 95: 20.716
Descriptive area: NE of Hangar's along the tree line in the grass.
THEIF RIVER FALLS JETTISON AREA
Describe the jettison area establish for the base: Lat: 48: 03.9' Long: 96: 11.1
Descriptive area: Jettison area is located west of the runways inside the perimeter of the fence.
PRINCETON JETTISON AREA
Describe the jettison area establish for the base: Lat: 45:25.980 Long: 93: 43.020
Descriptive area: Off airport on state land.
MORA JETTISON AREA
Describe the jettison area establish for the base: Lat: 46: 09.886 Long: 93: 11.862
Descriptive area: Off airport on state land.
HINKLEY JETTISON AREA
Describe the jettison area establish for the base: Lat: 45:56.259 Long: 92: 48.121
Descriptive area: Off airport on state land.
DETROIT LAKES JETTISON AREA
Describe the jettison area establish for the base: Lat: 46: 43.218 Long: 95: 48.344
Descriptive area: Section 36 of Lakeview Twp. TWP 138 Rng 41 Sec 36. Note: Adhere to the 300' buffer for lakes, wetlands, creeks & rivers.
ANOKA JETTISON AREA
Describe the jettison area establish for the base: Lat: 45: 19.97" Long: 93: 07.08"
Descriptive area: Upland grass field Carlos Avery Wildlife Refuge. Note: Adhere to the 300' buffer for lakes, wetlands, and rivers creeks & rivers.
BEMIDJI JETTISON AREA
Describe the jettison area establish for the base: Lat: 47 :22.583 Long:95 : 07.783
Descriptive area: 16-145-35
HIBBING JETTISON AREA
Describe the jettison area establish for the base: Lat: 47 : 13.850 Long: 92 : 51.950
BRAINERD JETTISON AREA
Describe the jettison area establish for the base: Lat: 46 : 36.360 Long: 94 : 02.500

# FireBoss-Blazetamer

**Application** – ATGS will call for Blazetamer (if needed and allowed by the host agency) prior to starting scooping operations

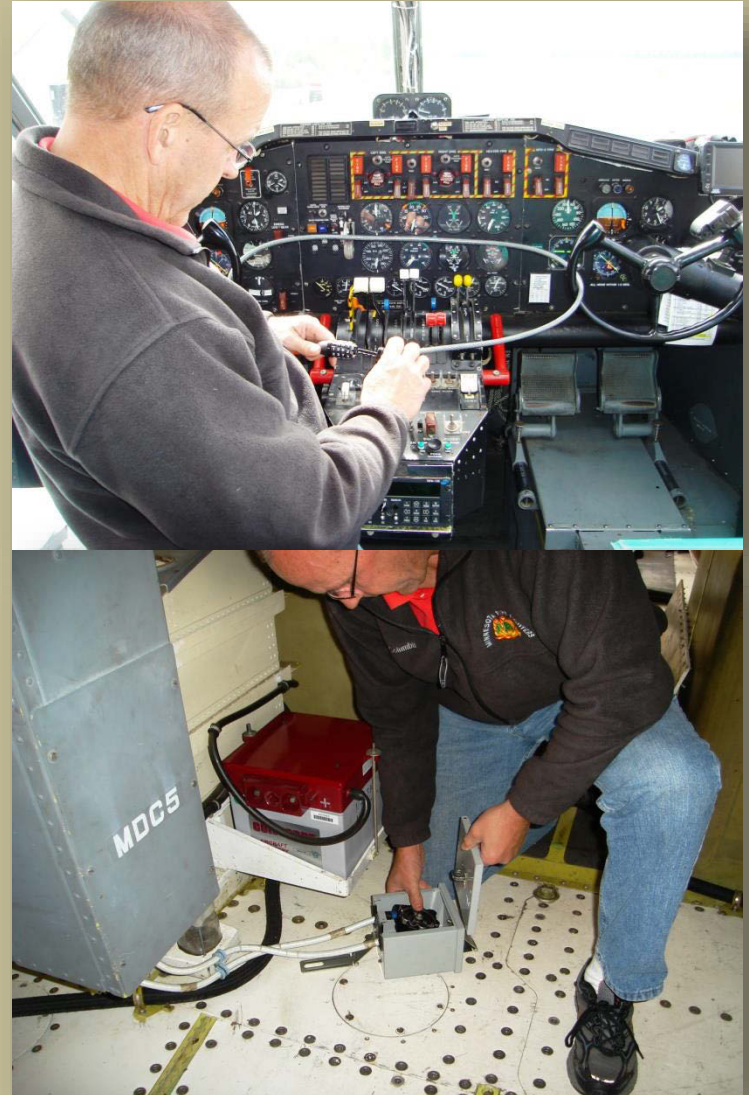
## Concentration

Normal default concentration will be set for approximately 0.3% with a second push of the button making 0.6%. Any change in desired concentration should take place prior to scooping ops.



# A/C Security

End of day – It is the Pilot/contractor responsibility to provide the appropriate (dual lock system) security for the aircraft to prevent unauthorized use





# Briefings

Daily morning briefing: Normally at 10:00 am-State bases  
Normally at 10:30 am-Bemidji T.B.



Expected to attend

# Debriefings

Will be done by the ATGS after every fire as soon as practical.

Expected to attend and encouraged to give candid observations.

Could be by phone if not based with ATGS.





COMMONLY USED AM RADIO FREQUENCIES MINNESOTA INTERAGENCY AIR OPERATIONS	
122.750	MNICS - AIR-AIR - ALL RISK FREQUENCY (call in 10 minutes out)
122.925	AIR-AIR & AIR-GROUND DESIGNATED NATURAL RESOURCES FREQUENCY
124.650	ALPHA - AIR-AIR - INITIAL ATTACK
119.950	BRAVO - AIR-AIR - INITIAL ATTACK
119.850	CHARLIE - AIR-AIR - INITIAL ATTACK
123.975	AIR-GROUND - AIR TANKER BASE OPERATIONS WITHIN 10 MILES OF BASE
122.700	CTAF: BRAINERD, FOREST LAKE
	AND IL CLOQUET, ELY, GRAND RAPIDS

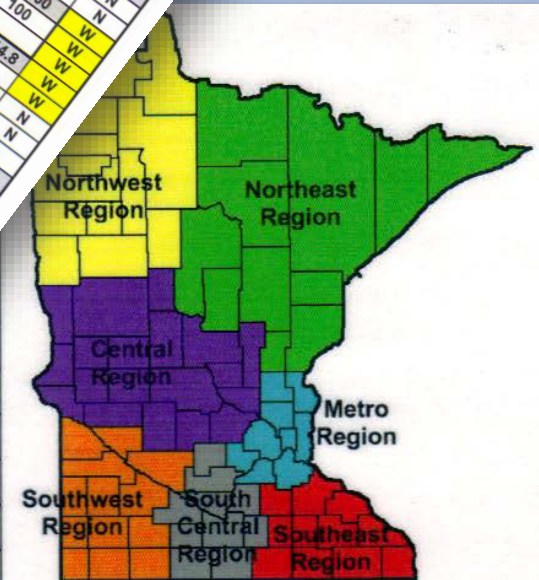
MINNESOTA AIR ATTACK PROGRAM RADIO FREQUENCY CHART					
CH	AREA / DESIGNATOR	Revised	2/19/09	TONE	NW
1	DNR TAC 1	151.475			
2	DNR AIR-GROUND	151.475			
3	MNICS TAC 1	151.475			
4	MNICS TAC 2	151.475			
5	FIRE MUTUAL AID	154.295			
6	MIRC-FIRE AIR NET	171.475			
7	QUADNA Air Net*	171.475			
8	EVELETH Air Net*	171.475			
9	NORTHME Air Net*	171.475			
10	BUFFALO Air Net*	171.475			
11	Southern	171.475			
12	TANKER BASE - RAMP	171.475			
13	AITKIN	171.475			
14	LITTLE FALLS	171.475			
15	ROCHESTER	171.475			
16	HIBBING/EVELETH	171.475			
17	TWO HARBORS	171.475			
18	CLOQUET	171.475			
19	SANDSTONE	171.475			
20	DEER RIVER/EFF	171.475			
21	LITTLE RIVER	171.475			
22	ORR / TOWNA	171.475			
23	BENIDJ	171.475			
24	PARK	171.475			
25		171.475			
26		171.475			

# COMMUNICATIONS PLANS

126.200	AIR-GROUND
126.500	AIR-GROUND - MINNEAPOLIS APPROACH
132.400	ANOKA TOWER
122.925	AIR-AIR & AIR-GROUND - STATE OF WIS
122.850	EMERGENCY LOCATOR TRANSMITTER
121.500	

NOTE: All MN Tanker Bases Monitor 122.925, 123  
MONITOR AIR GUARD - 168.625(n) AT ALL TIMES  
WILDFIRE TRANSPONDER CODE - 1255  
USE 122.925 FOR INITIAL ATTACK. THE AIR TAI  
FROM 122.925 TO USE ONE OF THE ALTERNAT


ZONE	
A	DNR & NORTH METRO REGION ANOKA (ANK), CHISAGO, ISANTI, RAMSEY, WASHINGTON
B	DNR & SOUTH METRO REGION DAKOTA (DK), CARVER (CV), HENNEPIN, SCOTT
C	DNR & CENTRAL REGION SHERBURNE (SH), OLMPSTED (OL), GOODHUE, RICE, WABASHA, STEELE
D	DNR & SOUTHEAST REGION ITASCA COUNTY (NORTHEAST REGION) ITASCA (IT), PINE, KANABEC, AITKIN, CROW WING, CASS
E	CONVENTIONAL TAC ZONE - FIRE, EMS, SA SCENE OF ACTION, SIMPLEX TALKGROUP
F	AIRCRAFT - ALL COUNTIES INITIAL CALL PLUS ANOKA, DAKOTA, CARVER, SHERBURNE, STEARNS, OLMPSTED
G	NORTH METRO REGION IC-ZONE ANOKA (ANK), CHISAGO, ISANTI, RAMSEY, WASHINGTON
H	SOUTH METRO REGION IC-ZONE DAKOTA (DK), CARVER (CV), HENNEPIN, SCOTT
I	CENTRAL REGION IC-ZONE CARVER (CV), STEARNS (ST)
J	SOUTHEAST REGION IC-ZONE OLMPSTED (OL), GOODHUE, RICE, WABASHA, STEELE
K	NORTHEAST REGION IC-ZONE ITASCA (IT), PINE, KANABEC, AITKIN, CROW WING, CASS
L	



# Air Attack Plan (FM/AM)

Air-to-Ground  
Air-to-Air  
Communications

VHF-AM  
Frequencies

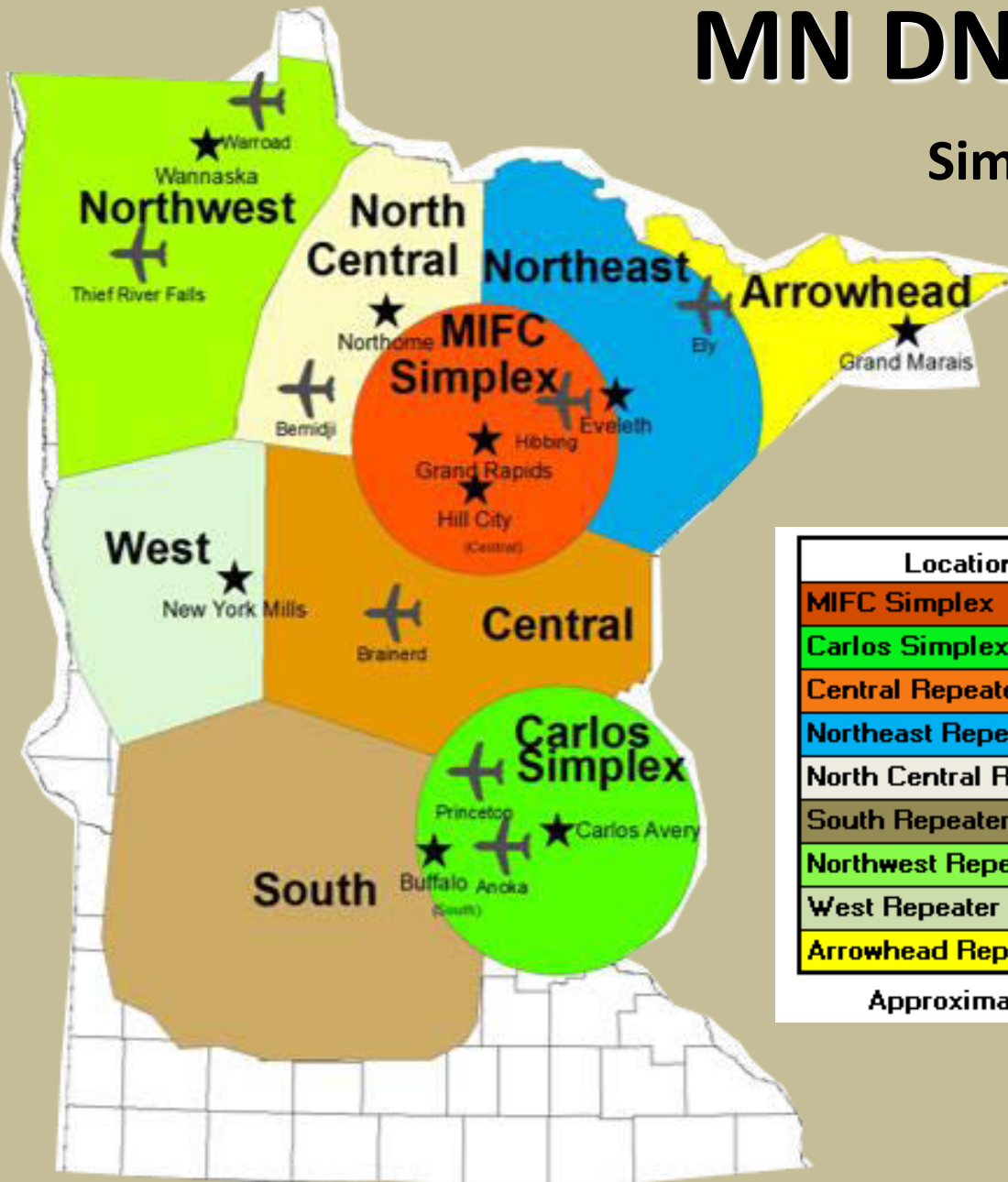
MN DNR FORESTRY AVIATION PROGRAM				
MN DNR RADIO FREQUENCY CARD				
Page 1		Updated 1-1-2017		
CH	AREA / DESIGNATOR	FREQUENCY	ONE/NAC	W/D
1	DNR TAC 1	151.4750	156.7	N
2	MINICS TAC 2	170.4750		N
3	VFIRE23 ( FIRE MUTUAL A	154.2950	Tx - 156.7	N
4	DNR A/G 1	151.3400	110.9	N
5	DNR A/G 2	159.3000	110.9	N
6	A/G - 70	167.9500		N
7	A/G - 28	170.0000		N
8	MIFC SIMPLEX - Air Net f	151.3700	\$555	D
9	CENTRAL REPEATER "	151.3700	\$555	D
	Quadna {Dig}	156.1350	\$455	D
10	NORTHEAST REPEATER"	151.3700	\$555	D
	Ereleth {Dig}	156.1350	\$40B	D
11	NORTH-CENT REPEATER	151.3700	\$555	D
	Northome {Dig}	156.1350	\$4F9	D
12	SOUTH REPEATER " R	151.3700	100.0	N
	Buffalo {A}	156.1350	136.5	N
13	CARLOS SIMPLEX - Air M	151.3700	100.0	N
14	NORTHWEST REPEATER	151.3700	\$555	D
	Wannaska {Dig}	156.1350	\$4A4	D
15	WEST REPEATER "	151.3700	\$555	D
	New York Mills {Dig}	156.1350	\$585	D
16	ARROWHEAD REPEATER	151.3700	\$555	D
	Maple Hill {Gr. Marais} {Di	156.1350	\$4CE	D
17	HELIBASE DECK / RAMP	159.2400	100.0	N
18	WARROAD ( Wannaska )	151.3850	127.3	N
19	BAUDETTE	151.3250	127.3	N
20	BEMIDJI	151.2650	136.5	N
21	PARK RAPIDS	151.3850	136.5	N
22	BACKUS	151.1750	146.2	N
23	LITTLEFORK	151.1750	127.3	N
24	TOWER	151.2650	103.5	N
25	TWO HARBORS	151.1750	103.5	N
26	CLOQUET	154.4300	103.5	N
27	HIBBING ( Ereleth )	151.3250	103.5	N
28	DEER RIVER ( Grand Rap	151.3850	110.9	N
29	AITKIN	151.2650	110.9	N
30	SANDSTONE	151.3850	146.2	N
31	LITTLE FALLS	151.4000	156.7	N
32	CAMBRIDGE	151.3250	146.2	N
33	ROCHESTER	151.2650	127.3	N
Northern Air - Nets now digital. Carlos/Bufal will be analog				
TRANSPONDER 1255		LIGHTS ON		
C codes for Digital in "HEX" format (\$) - Repeaters shown are i				
Note: Channel 3 (V-Fire23) & JARD - tone on Tx only				
AIR GUARD		168.625	Tx110.9	N

MN DNR FORESTRY AVIATION PROGRAM				
M (Victor) & MNICS RADIO FREQUENCY CAR				
Page 2		Updated 1-1-2017		
CH	AREA / DESIGNATOR	SIMPLEX	ONE/NAC	W/D
34	USFS - SUPERIOR NET	170.5250		N
35	USFS - NAT'L FLIGHT FOL	168.6500	Tx - 110.9	N
36	USFS - SUPERIOR TAC 1	169.1250		N
37	A/G - 19	168.1250		N
38	USFS - CHIPPEWA NET	173.7750		N
39	USFS - CHIPPEWA TAC 1	171.5500		N
40	USFS - NAT'L TAC 1	168.0500		N
41	USFS - R9FTAC	166.5625		N
42	USFS - NAT'L TAC 3	168.6000		N
43	BIA - STATEWIDE	172.4250		N
44	BIA - RED LAKE	166.2750	Tx - 114.8	N
45	BIA - NETT LAKE	172.4250	Tx - 100.0	N
46	BIA - NETT LAKE	172.4250		N
	NETT LAKE RP1 "	171.7250	Tx - 100.0	N
47	VOYAGEURS NP ANALOG	166.9000		N
48	VOYAGEURS NP DIGITAL	166.9000	\$100	D
49	YLAW31 ( MINSEF )	155.4750	Tx - 156.7	N
50	YMED28 ( EMS )	155.3400	Tx - 156.7	N
51	MNCOMM ( MIMS )	155.3700	Tx - 156.7	N
52	V-CALL 10	155.7525	Tx - 156.7	N
53	V-TAC 11	151.1375	Tx - 156.7	N
54	V-TAC 12	154.4525	Tx - 156.7	N
55	V-TAC 13	158.7375	Tx - 156.7	N
56	V-TAC 14	159.4725	Tx - 156.7	N
57	MIFC SIMPLEX - Air Net f	151.3700	136.5	N
58	CENTRAL REPEATER "	151.3700	136.5	N
	Quadna {Analog}	156.1350	110.9	N
59	NORTHEAST REPEATER "	151.3700	136.5	N
	Ereleth {Analog}	156.1350	103.5	N
60	NORTH-CENT REPEATER	151.3700	136.5	N
	Northome {Analog}	156.1350	127.3	N
61	NORTHWEST REPEATER	151.3700	136.5	N
	Wannaska {Analog}	156.1350	118.8	N
62	WEST REPEATER "	151.3700	136.5	N
	New York Mills {Analo	156.1350	141.3	N
63	ARROWHEAD REPEATER	151.3700	136.5	N
	Maple Hill {Gr. Marais} {Ans	156.1350	123.0	N
VHF - AM (VICTOR) FREQUENCIES				
PRIMARY INITIAL ATTACK - A/A & A/G		122.925		
ALPHA - INITIAL ATTACK - AIR/AIR		124.650		
BRAVO - INITIAL ATTACK AIR/AIR		119.950		
CHARLIE - INITIAL ATTACK AIR/AIR		119.850		
MNICS - AIR/AIR - ALL RISK FREQUENCY		123.025		
TANKER BASE OPERATIONS-AIR/GRND / R		120.125		
Note: Channels 35, 44 - 46, 49-56 are tone on Tx only				
C codes for Digital in "HEX" format (\$) - Repeaters shown are				



# MN DNR Fire Air Net

## Simplex and Repeater Zones



Location	Rx	Tone	Tx	Tone	N/D
MIFC Simplex	151.3700	\$555	151.3700	\$555	D
Carlos Simplex	151.3700	100.0	151.3700	100.0	N
Central Repeater	151.3700	\$555	156.1350	\$455	D
Northeast Repeater	151.3700	\$555	156.1350	\$40B	D
North Central Repeater	151.3700	\$555	156.1350	\$4F9	D
South Repeater	151.3700	100.0	156.1350	136.5	N
Northwest Repeater	151.3700	\$555	156.1350	\$4A4	D
West Repeater	151.3700	\$555	156.1350	\$585	D
Arrowhead Repeater	151.3700	\$555	156.1350	\$4CE	D

Approximate coverage shown on map based on 2,500' MSL

# MN DNR Fire Air Net Communications Procedures

*For Best Results,  
Adhere to these Guidelines:*

**MIFC SIMPLEX:** within 50 nautical miles of Grand Rapids (GPZ)

**CARLOS SIMPLEX:** within 50 nautical miles of Carlos Avery Wildlife Management Area (Forest Lake - 25D)

**CENTRAL Repeater:** located on Quadna Mtn near Hill City

**NORTHEAST Repeater:** located in Eveleth

**NORTH CENTRAL Repeater:** located in Northome

**SOUTH Repeater:** located in Buffalo

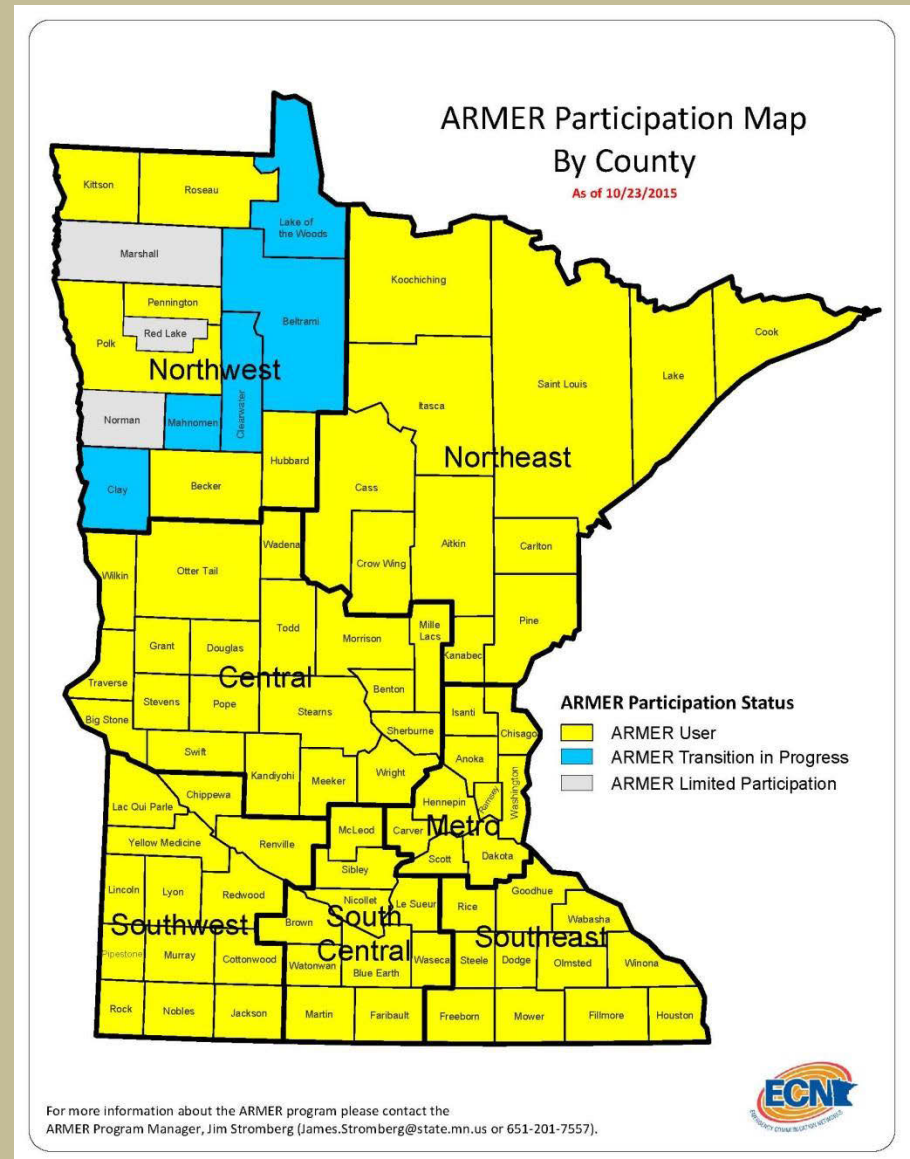
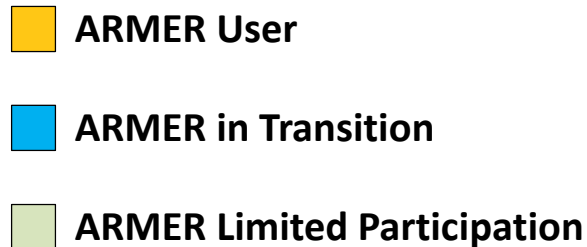
**NORTHWEST Repeater:** located in Wannaska

**WEST Repeater:** located near New York Mills

**ARROWHEAD Repeater:** located near Grand Marais

# ARMER Radio System (800 mHz)

For communication with  
Fire Departments, EMS  
and other State and  
County Emergency  
Services



# ARMER Fleet Map (800Mhz)

#2017		BASIC DNR FORESTRY ARMER (800MHz) FLEET MAP											
ZONE A		ZONE B		ZONE C		ZONE D		ZONE E		ZONE F		ZONE G	
DNR FORESTRY		METRO IC ZONE		CENTRAL IC ZONE		NORTHEAST IC ZONE		NORTHWEST IC ZONE		SOUTHEAST IC ZONE		SOUTHWEST IC ZONE	
DNR FRST	1	MSP CALL	1	CM CALL	1	NE-CALL	1	NW-CALL	1	SE-CALL	1	SR CALL	1
FRST ADM	2	ME TAC 1	2	CM 2	2	NE-2	2	NW 2	2	SE-2	2	SR-2	2
FRST NW 3	3	ME TAC 2	3	CM 3	3	NE-3	3	NW 3	3	SE-3	3	SR-3	3
FRST NE 3	4	ME TAC 3	4	CM 4	4	NE-4	4	NW 4	4	SE-4	4	SR-4	4
FRST SC 3	5	ME TAC 4	5	CM 5	5	NE-5	5	NW 5	5	SE-5	5	SR-5	5
FRST CAME	6	ME TAC 5	6	CM 6	6	NE-6	6	NW 6	6	SE-6	6	SR-6	6
C. Ripley-Fir	7	ME TAC 6	7	CM 7	7	NE-7	7	NW 7	7	SE-7	7	SR-7	7
C. Ripley-Range	8	ME TAC 7	8	CM 8	8	NE-8	8	NW 8	8	SE-8	8	SR-8	8
DRO-1	9	ME TAC 8	9	CM 9	9	NE-9	9	NW 9	9	SE-9	9	SR-9	9
DRO-2	10	STAC 1	10	CM 10	10	NE-10	10	NW 10	10	SE-10	10	SR-10	10
DRO-3	11	8CALL90	11	CM 11	11	NE-11	11	NW 11	11	SE-11	11	SR-11	11
DRO-4	12	FRST CAME	12	CM 12	12	NE-12	12	NW 12	12	SE-12	12	SR-12	12
FSOA1	13	FRST SC 1	13	FRST SC 1	13	FRST NE 1	13	FRST NW 1	13	FRST SC 1	13	FRST SC 1	13
DYN RGP	14	FRST SC 2	14	FRST SC 2	14	FRST NE 2	14	FRST NW 2	14	FRST SC 2	14	FRST SC 2	14
SEMTAC	15	FRST SC 3	15	FRST SC 3	15	FRST NE 3	15	FRST NW 3	15	FRST SC 3	15	FRST SC 3	15
FRST A/G	16	FRST A/G	16	FRST A/G	16	FRST A/G	16	FRST A/G	16	FRST A/G	16	FRST A/G	16

ZONE H		ZONE I		ZONE J	
SOUTHWEST IC ZONE		STATEWIDE INTEROP		CONVENTIONAL INTEROP	
SW-CALL1	1	STAC1	1	8CALL90	1
SW-2	2	STAC2	2	8TAC91	2
SW-3	3	STAC3	3	8TAC92	3
SW-4	4	STAC4	4	8TAC93	4
SW-5	5	STAC5	5	8TAC94	5
SW-6	6	STAC6	6	8CALL90D	6
SW-7	7	STAC7	7	8TAC91D	7
SW-8	8	STAC8	8	8TAC92D	8
SW-9	9	STAC9	9	8TAC93D	9
SW-10	10	STAC10	10	8TAC94D	10
SW-11	11	STAC11	11	8SOA1	11
SW-12	12	STAC12	12	8SOA2	12
FRST SC 1	13	FSOA1	13	8SOA3	13
FRST SC 2	14	FSOA2	14	8SOA4	14
FRST SC 3	15	DNR FRST	15	FSOA1	15
FRST A/G	16	FRST A/G	16	FSOA2	16

ARMER (800MHz) REGIONS

# ARMER Fleet Map (800Mhz)

HAILING TALKGROUP		TRUNKED TALKGROUPS				SIMPLEX (NON-TRUNKED) TALKGROUPS	
NATIONWIDE ANALOG CONVENTIONAL CHANNELS						"D" - DIRECT or SIMPLEX CHANNELS	
CUSTOMIZED TALKGROUPS						PROCEDURES	
ZONE K		ZONE L		ZONE M		ZONE N	MAKE INITIAL CONTACT WITH COUNTY DISPATCHER ON PRIMARY IC ZONE (HAILING) TALKGROUP TO NOTIFY THEM THAT YOU ARE RESPONDING
DNR FRST	1	DNR FRST	1	DNR FRST	1	DNR FRST	COUNTY - DNR (RESOURCE) - ON CALL "DNR IS RESPONDING TO THE INCIDENT, REQUESTING THE ASSIGNED TALKGROUP"
FRST ADM	2	FRST ADM	2	FRST ADM	2	FRST ADM	
	3		3		3		COUNTY DISPATCHER WILL NOTIFY YOU OF THE ASSIGNED TALKGROUP FOR THE INCIDENT
	4		4		4		
	5		5		5		THE TALKGROUP ASSIGNED TO THE INCIDENT ON YOUR FLEET MAP AND PROGRAMMED INTO YOUR RADIO, USE IT FOR INCIDENT COMMUNICATION
	6		6		6		
	7		7		7		THE TALKGROUP ASSIGNED TO THE INCIDENT IS NOT AVAILABLE ON YOUR RADIO, REQUEST AN IC ZONE TALKGROUP FROM THE DISPATCHER
	8		8		8		
	9		9		9		INFORMATION
	10		10		10		
	11		11		11		DRO-1 RED CROSS DRO-2 SALVATION ARMY DRO-3 DISASTER RELIEF DRO-4 DISASTER RELIEF SEMTAC EMERGENCY MANAGEMENT DYN RGP RADIO REGROUP
	12		12		12		
	13		13		13		MIFC AVIATION DESK MONITORS "FRST A/G" STATE PATROL DISPATCHER MONITORS "MSF"
	14		14		14		
	15		15		15		
	16		16		16		
ZONE DESCRIPTIONS							
ZONE A		DNR FORESTRY, CAMP RIPLEY & DISASTER RELIEF TALKGROUPS					
ZONES B-C-D-E-F-G-		IC ZONE TALKGROUPS - ASSIGNED BY COUNTY DISPATCHERS					
ZONE I-J		STATEWIDE INTEROPERABILITY ZONES					
ZONES K-L-M-		CUSTOMIZED BY AREA / REGION / MIFC					



# Call Signs

- **Fire Center** (MIFC Air Desk)
- **Tanker Base** (BRD,BJI, HIB, ELO)
- **Superior Dispatch, Chippewa Dispatch** (National Forests)
- **Red Lake 50** (five-oh)
- **Air Attack 1** (2,3,4,5,6,7,8,9,10)
- **MNDNR Administrative Areas** (by name- *Bemidji Area*)



Technisonic

TDFM-136

010 T-B RAMP n168.0500Rx  
CD1 AIRGUARD n168.6250Rx

# RADIO PROGRAMMING / RADIO CHECKS

MIN

G1

HI



GD



G2



# Radio Programming

Confirm radio is programmed to comply with Air Attack List

MN DNR FORESTRY AVIATION PROGRAM				
GLFFC RADIO FREQUENCY CARD				
Page 1		Revised 11/2017		
CH	AREA / DESIGNATOR	FREQUENCY	TONE	N/W
WISCONSIN FM FREQUENCIES				
64	WISCONSIN - RED	151.4300	Tx136.5	N
65	WISCONSIN - BROWN	151.4000	Tx146.2	N
66	WISCONSIN - PURPLE	151.1600	Tx 71.9	N
67	WISC. AIR/GROUND	170.4750	156.7	N
68	WISC. FG BLUE (MUT-AID)	154.2950	Tx 85.4	N
69	WISCONSIN* Rx Cumberland (Aircraft) Tx	151.1450 159.2250	156.7 85.4	N
70	WISCONSIN* Rx Brule (Aircraft) Tx	151.3550 159.3300	103.5 192.8	N
71	WISCONSIN* Rx Black River Falls (Aircraft) Tx	151.3550 159.3300	136.5 85.4	N
72	WISCONSIN* Rx Park Falls (Aircraft) Tx	151.2050 159.2550	156.7 110.9	N
73	WISCONSIN* Rx Wisconsin Rapids (Aircraft) Tx	151.1450 159.2250	146.2 151.4	N
74	USFS AIR/GROUND (A/G 19)	168.1250		N
75	USFS AIR/GROUND (A/G 51)	168.3125		N
76	USFS AIR/GROUND (A/G 16)	169.1750		N
WISCONSIN VHF-AM (VICTOR) FREQUENCIES				
PRIMARY INITIAL ATTACK - A/A & A/G			122.925	
SECONDARY - INITIAL ATTACK - A/A & A/G			122.850	
WISCONSIN PHONE CONTACTS				
BRULE DISPATCH			715-372-5686	
CUMBERLAND DISPATCH			715-822-3154	
ONTARIO LOW BAND FM FREQUENCIES				
1	FT. FRANCES	46.62	110.9	LB
3	KENORA	46.68	110.9	LB
5	DRYDEN REGION	46.72	110.9	LB
8	ATIKOKAN	46.82	110.9	LB
15	THUNDER BAY	46.54	110.9	LB
ONTARIO VHF-AM (VICTOR) FREQUENCIES				
BORDER INITIAL ATTACK A/A			122.925	
DRYDEN INITIAL ATTACK A/A			122.650	
THUNDER BAY INITIAL ATTACK A/A			122.250	
KENORA INITIAL ATTACK A/A			130.350	
ONTARIO PHONE CONTACTS				
WEST REGION DUTY OFFICER			807-937-7240	
WEST REGION AIRCRAFT MANAGEMENT OFFICE			807-937-7218	
All Frequencies are Simplex unless designated with Repeater*				

MN DNR FORESTRY AVIATION PROGRAM				
GLFFC RADIO FREQUENCY CARD				
Page 2		Revised 11/2017		
CH	AREA / DESIGNATOR	FREQUENCY	TONE	N/W
MICHIGAN FM FREQUENCIES				
77	AIR/GROUND UP	171.5750		N
78	AIR/GROUND LP	171.4250		N
79	MI DNR TAC 1	151.3250		N
80	MI DNR TAC 2	159.2700		N
81	MI DNR TAC 3	159.3450		N
82	VFIRE23	154.2950	Tx156.7	N
83	USFS AIR/GROUND (A/G 66)	166.6750		N
84	USFS AIR/GROUND (A/G 28)	170.0000		N
85	USFS AIR/GROUND (A/G 70)	167.9500		N
MICHIGAN 800 MHz				
State of Michigan uses 800 MHz - Can Use Zone J (Conventional Interop) ALL90, 8TAC91, 8TAC92, 8TAC93, 8TAC94 & "D" talkgroups for Simplex				
MICHIGAN VHF-AM (VICTOR) FREQUENCIES				
PRIMARY INITIAL ATTACK - A/A & A/G			122.925	
MICHIGAN PHONE CONTACTS				
LOWER PENINSULA			989-275-5151	
UPPER PENINSULA			906-249-1497	
MANITOBA FM FREQUENCIES				
86	MANITOBA* Regional DO Lac du Bonnet Fire Centre (4)	163.6500 164.8800		W
87	MANITOBA* F Steinbach (5)	164.1600 163.1700		W
88	MANITOBA* F Sprague (1)	163.8900 164.8200		W
89	MANITOBA* F Jessica Lake (3)	163.8300 164.6100		W
90	FIRE COMMISSIONER TAC	158.5500		W
91	A/G (12) Primary	163.6650		W
92	A/G (14) North	163.0200		W
MANITOBA VHF-AM (VICTOR) FREQUENCIES				
BORDER FIRES - PRIMARY INITIAL ATTACK A/A			122.925	
BIRD DOG #191			122.650	
BIRD DOG #192			122.250	
BIRD DOG #193			122.050	
BIRD DOG #198			122.850	
MANITOBA PHONE CONTACTS				
EASTERN REGION DUTY OFFICER			204-345-1418	
PROVINCIAL DUTY OFFICER - WINNIPEG			204-945-5252	
All frequencies are Simplex unless designated with Repeater*				

# Radio Checks

- Do a complete radio check with Air Attack/ SEMG/Tanker Base at startup
  - Check tones and narrow banding
- Check Guard
- Air Net and Air Net repeaters
- Confirm proper use of FM/AM frequencies







**FLIGHT FOLLOWING**

# Flight Following SEATs and FireBoss'

- **State Fires**
- Flight following will be accomplished **with AFF**
- Tankers will communicate directly with the Tanker Base they departed from on AirNet simplex
  - Initial call when airborne (Flight Following brief)
    - Identifier/call sign
    - # souls
    - Hours of fuel on board
    - Destination
    - ETE
    - **Confirm AFF**

# Flight Following SEATs and FireBoss'

- **State Fires**
- After making contact with the fire (ATGS or IC) the pilot will contact their **home Tanker Base Dispatch** on the appropriate AirNet Repeater to inform that they are in contact with the fire and will flight follow local.
- AFF primary flight following responsibility resides with the Tanker Base of departure for the entire mission.



# Flight Following SEATs and FireBoss'

- **State Fires**
- **Load and return**-Pilots will contact the base designated for reload on the appropriate AirNet repeater to inform inbound for a load.
- **Release**-Upon release from the fire and leaving the Fire Traffic Area, the pilot will contact their home base or holding base on the appropriate AirNet freq/repeater with their intentions to return to base.

# Flight Following

## Large Air Tankers and CL-415's

- Federally contracted Large Air Tankers, CL-415's and Canadian CL-415's
  - Make initial flight following departure brief with **Fire Center** on AirNet simplex or appropriate AirNet repeater
  - Contact ATGS on designated Air to Air frequency for FTA clearance and tactical communications within the FTA. Once contact is made, close out with **Fire Center** by informing you are in contact with the fire and will flight follow local.
  - AFF primary flight following responsibility resides with the Fire Center for the entire mission.

A photograph of a large fire burning on a hillside. Thick, white and grey smoke rises from the fire, filling the upper half of the image. The fire itself is visible as a bright orange and yellow glow on the hillside. The foreground shows a forest of green trees and brown, dry vegetation.

# **FIRE TRAFFIC AREA (FTA)**

# Fire Traffic Area

**12nm+ most aircraft (30 nm back for jets)**

Initial call– Call sign

Location

Distance

Direction from fire

Altitude

**7nm** – Do not enter unless: Have **C**learance

Have **C**ommo

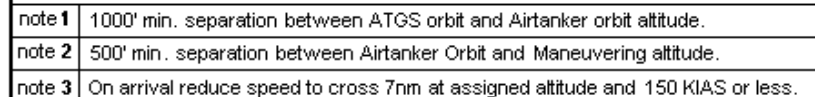
Can **C**omply

Close out flight follow with Dispatch when in contact with Air Attack or the fire and continue AFF

**5 nm radius from center of incident**

CLEARANCE IS REQUIRED TO ENTER FTA

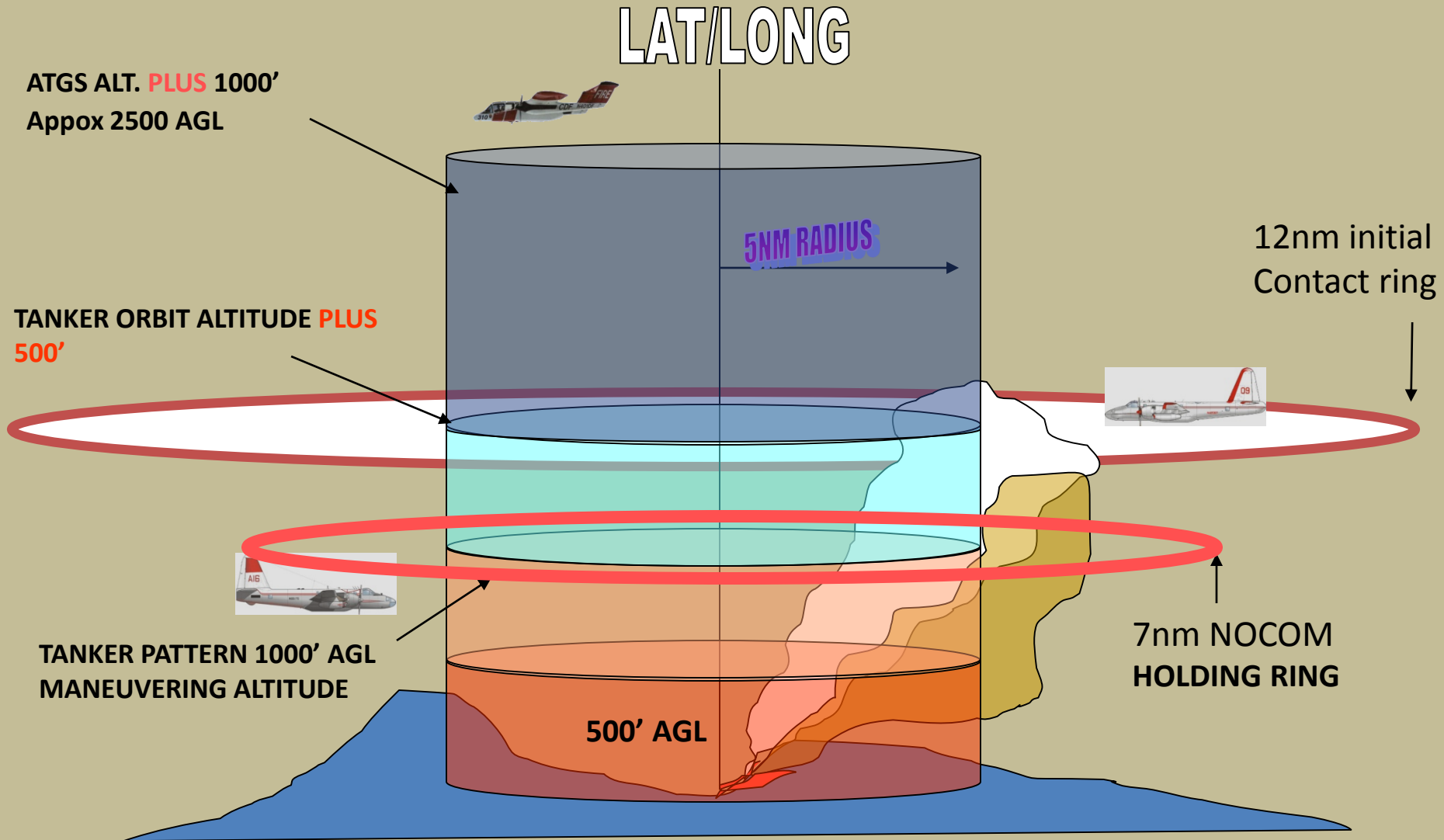
**NOTE:** Airtanker Maneuvering altitude determines minimum Airtanker and ATGS Orbit altitudes. Assigned altitudes may be higher and will be stated as **MSL**.



\* **MEDIA** — Maintain VFR separation above highest incident aircraft or position and altitude as assigned by controlling aircraft.



# FTA DIMENSIONS

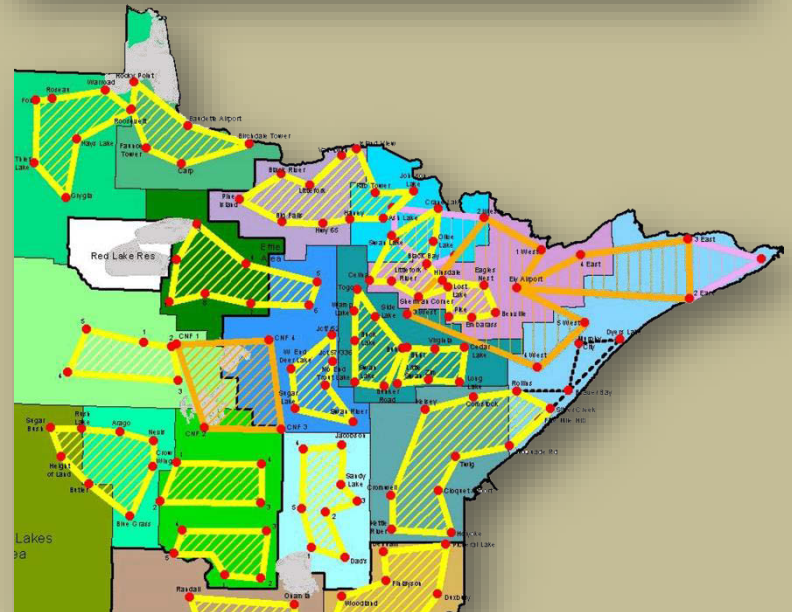


# Detection Aircraft

A pilot and aerial observer fly a predetermined route over a large area to locate fires from the air.

Detection is often the first aircraft over the fire and are typically found at 2500-3500 MSL on

**122.925 Victor frequency**





# UAS (DRONE) INTRUSION

- **REPORTED UAS INTRUSION PROTOCOLS**

- Incident aircraft will immediately disengage
- ATGS will coordinate disengagement (if assigned)
  - Designate and assign aircraft to holding areas and flight altitudes or return to base or nearest airport
  - Assess/manage tanker fuel situation
- Remain disengaged until reported all clear
- ATGS will coordinate re-engagement when safe



**INITIAL ATTACK  
WITHOUT ATGS**

# Initial Attack without ATGS

Normally, in MN aerial suppression operations are supervised by an ATGS.

However, IA rated PIC's are allowed to drop on fires without supervision in most situations.



# Initial Attack without ATGS

- If dispatched to a fire without supervision
  - Obtain a proper and complete dispatch
  - Contact Fire Center upon departure on AirNet with departure brief and confirm AFF
  - Follow FTA protocols and obtain clearance from detection or helicopter on scene. If aircraft status is unknown, make blind call on 122.925 prior to entry of Fire Traffic Area

# Initial Attack without ATGS

- If dispatched to a fire without aerial supervision, the following procedures are recommended:
  - Establish communications with the IC or other ground contact on the assigned air to ground frequency
  - Fly a high level (1000' AGL) recon and size up the fire
  - Relay your size up to the IC on the A/G frequency
  - Relay your size up to Fire Center on AirNet simplex or appropriate repeater
  - Coordinate with the IC to form a suppression plan
  - Confirm with the IC that the line is clear/clear to drop

# **Drop Area Clearances**

- **CLEARING THE DROP AREA OF PERSONNEL**

## **FIXED WING OPERATION MINIMUMS:**

- 200' laterally for personnel & equipment
- 300' in front of or behind canopied equipment  
500' in front of or behind unprotected personnel
- **REQUIRES GOOD COMMUNICATIONS**



# Initial Attack without ATGS

- Confirm line is clear/clear to drop
- Make the drop and evaluate your drop
- Contact IC to determine load and return or return and hold
- Contact Fire Center with update and whether load and return or hold
- If changing to scooping mode, determine scooping lake and invasive species status

# Infested Waters Procedure

## UTILIZE INFESTED WATERS OR NOT??

Questions to ask yourself:

- If I don't use this water, is loss of life or property likely?

  - If **yes**, **use** the infested lake.

  - If **no**, **do not use** the infested lake.

- Is there a non infested lake within a reasonable distance?

- Can I contain the fire using a farther, non-infested source?

  - If **yes**, **do not use** the infested water.

  - If **no**, **use** the infested water.

- If infested water was used and requested for another fire, notify Fire Center and ask for guidance.

# Common Animals and Plants

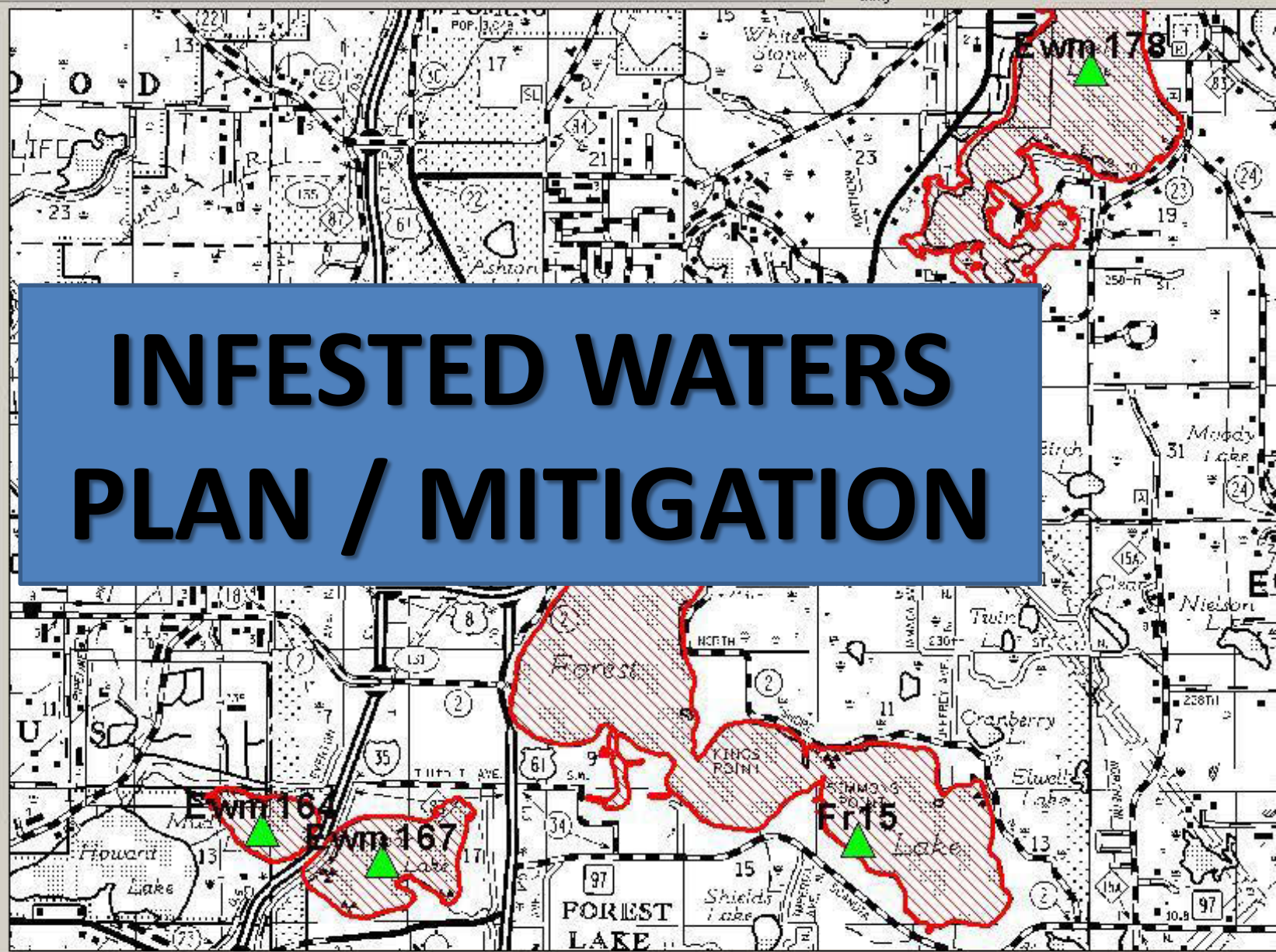
<b>Animals</b>	GPS Label	<b>Plants</b>	GPS Label
Zebra Mussel	<b>ZM</b>	Eurasian Milfoil	<b>EWM</b>
Spiny Water Flea	<b>SWF</b>	Flowering Rush	<b>FR</b>
Faucet Snail	<b>FS</b>	Brazilian Elodea	<b>BE</b>
Ruffe	<b>R</b>	Brittle Naiad	<b>BN</b>

## Cleaning Procedures

1. Identify the water body and invasive specie.
2. For **Plants**, visually inspect the aircraft. Pick off any plant material and discard on high ground.
3. For **Animals**, drain the floats, pressure wash the tank and floats with 140° water thoroughly.
4. Allow to dry for 24 hours if feasible

- Overlay Layers
- ☐ PLS Townships
  - ☐ PLS Sections
  - ☐ PLS Forties
  - ☐ Lakes + Rivers
  - ☐ DOT Basemap
  - ☐ 5-6-10.shp
  - ☒ designated infested
  - ☒ designated infested
  - ☐ Trails and
  - ☐ Fire Pine.shp
  - ☐ test2.shp
  - ☐ Trout Streams + Trib.
  - ☐ FIM v2 Data
  - ☐ FIM
  - ☐ County/State Lands

- Background Map
- ☐ None
  - ☐ 2003 FSA Photos
  - ☐ 1990-91 NAPP
  - ☐ Quad Maps
  - ☐ PRIM Maps
  - ☐ WMS 2009 DNR
  - ☐ WMS 2008 FSA
  - ☐ Wetlands (nwii)
  - ☐ LandSat False Color
  - ☐ State Highway
  - ☐ County Highway
  - ☐ Plat Books
  - ☐ USDA-ASCS
  - ☐ General Lands



# INFESTED WATERS PLAN / MITIGATION

# Invasive Species

Eurasian Water Milfoil



Spiny Water Flea



Zebra Mussels



Others

many

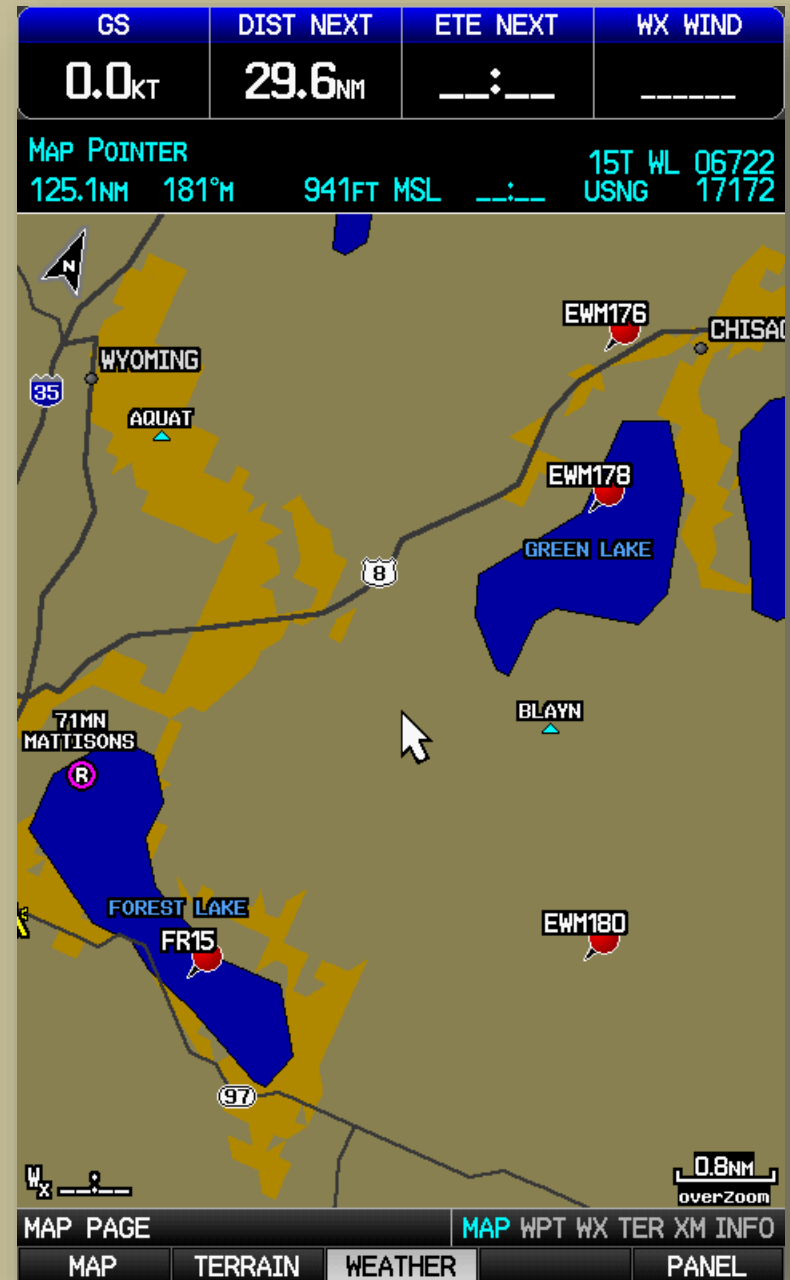


# GPS Database

Check status of lake before scooping-infested or clean

Confirm lake choice with ATGS (or dispatch if lone wolf)

Is it plant(green slashes or  
Is it critters (red slashes)





# Infested Lakes

Use an infested lake only if life or significant property is threatened

If infested lake is used, take appropriate measures to clean/remedy tank before scooping in a clean lake

**Plant**-inspection needed

**Critter**-hot water wash required



# Infested Waters Plan

Familiarize yourself with  
the written plan

Plan is available at all bases  
Ask Staff for a copy

MN Dept. of Natural Resources  
Division of Forestry

## Infested Waters & Waters of Special Concern

Aircraft Operations Plan - Adopted Jan. 19, 2006



UPDATED 03/09/2015

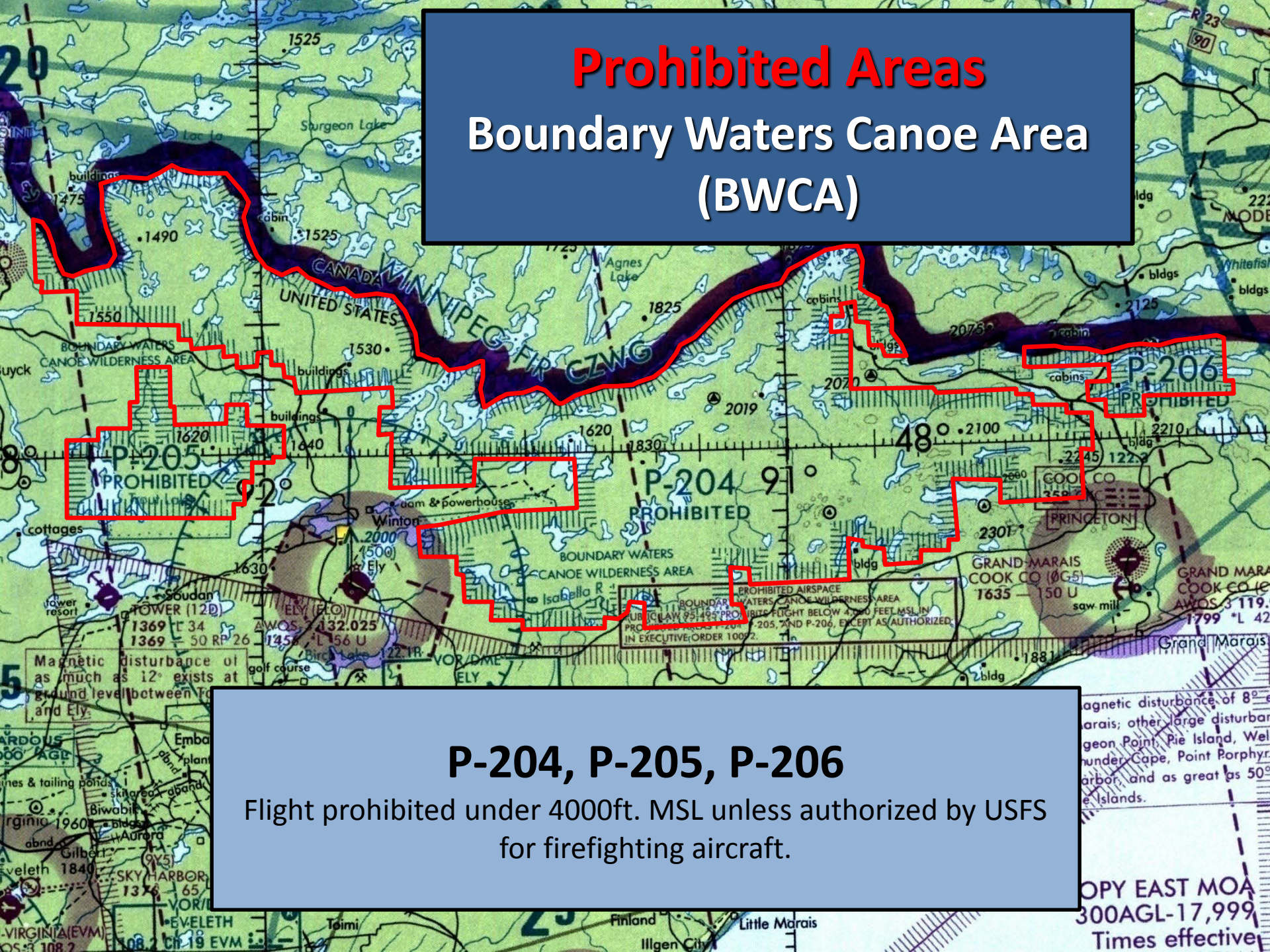




# SPECIAL USE AIRSPACE



# Prohibited Areas Boundary Waters Canoe Area (BWCA)



## P-204, P-205, P-206

Flight prohibited under 4000ft. MSL unless authorized by USFS for firefighting aircraft.

Magnetic disturbance of 8°  
marais; other large disturban  
geon Point, Pie Island, Wel  
under Cape, Point Porphy  
arbor, and as great as 50°  
e Islands.

COPY EAST MOA  
300AGL-17,999  
Times effective





## Restricted Area

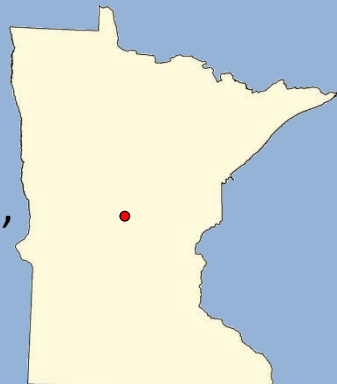
### Camp Ripley

RIPLEY  
404 XCR

94°

## R-4301, Artillery

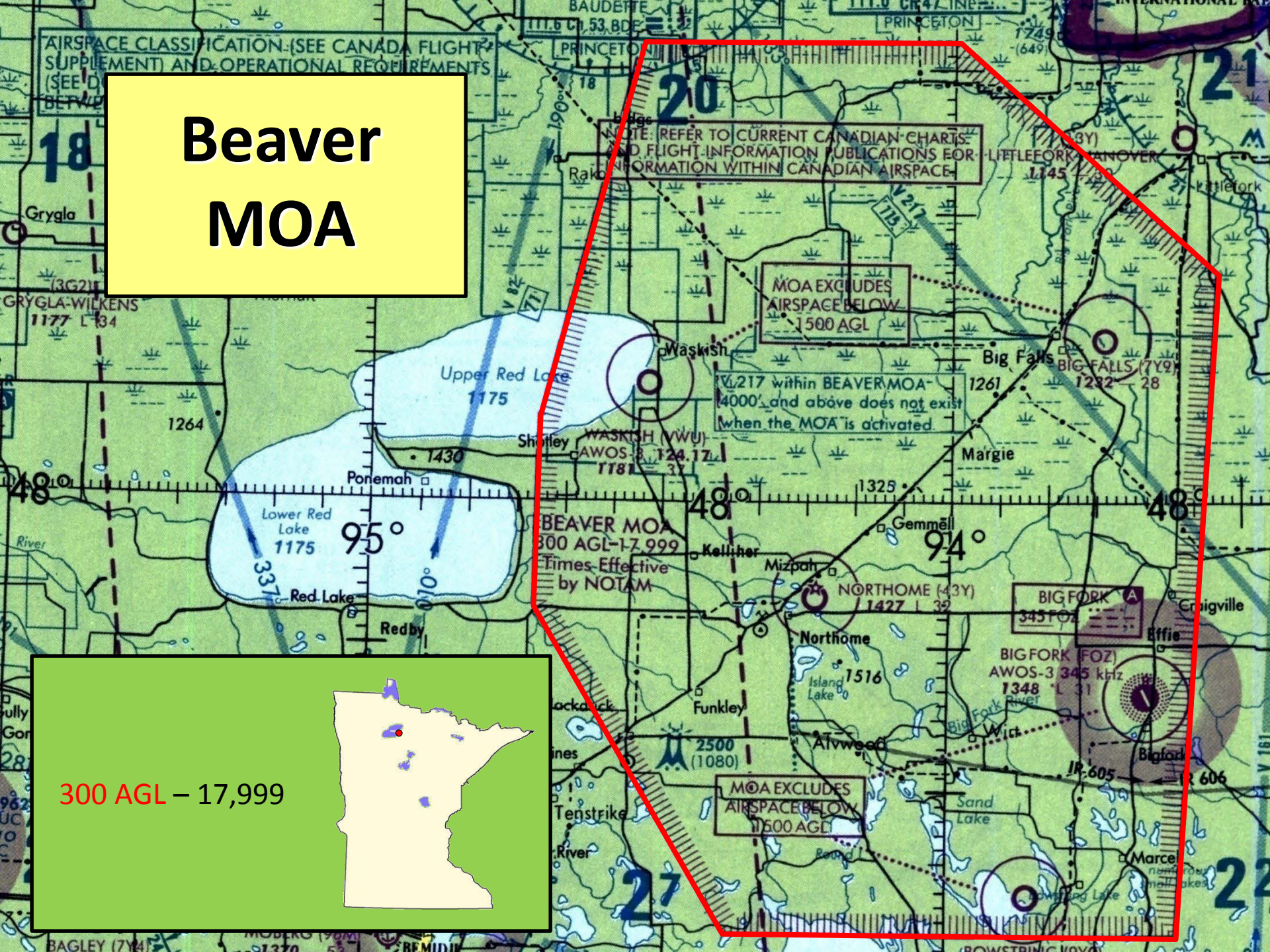
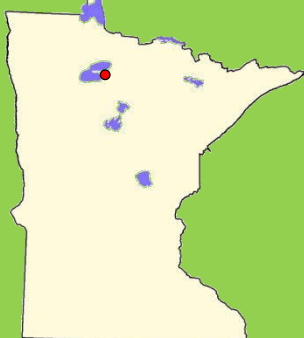
0730-2400 or by NOTAM  
Must be cleared to fly through,  
Miller Tower 126.2,  
or call Mpls. Center





# Beaver MOA

300 AGL – 17,999

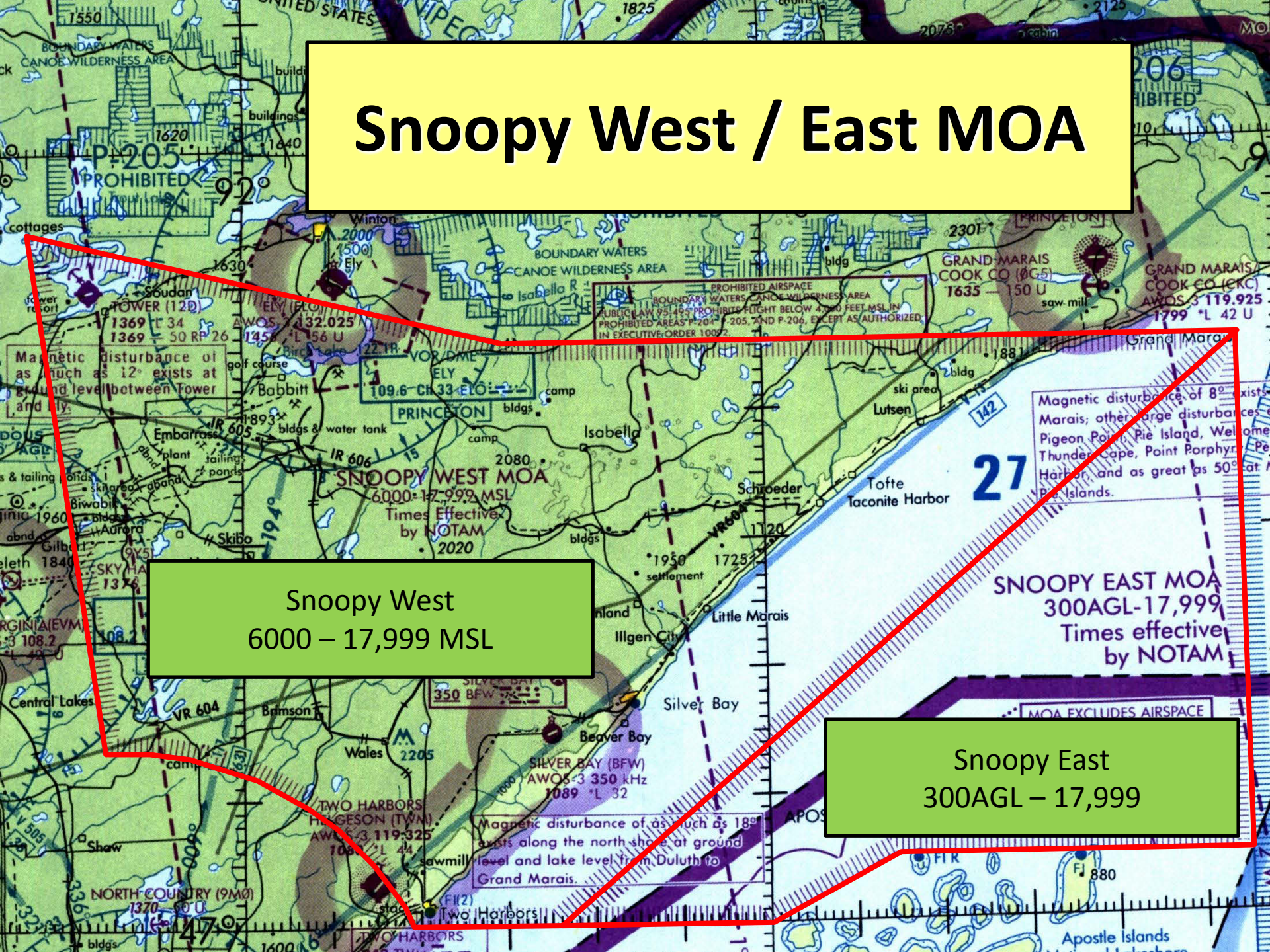




# Snoopy West / East MOA

Snoopy West  
6000 – 17,999 MSL

Snoopy East  
300AGL – 17.999



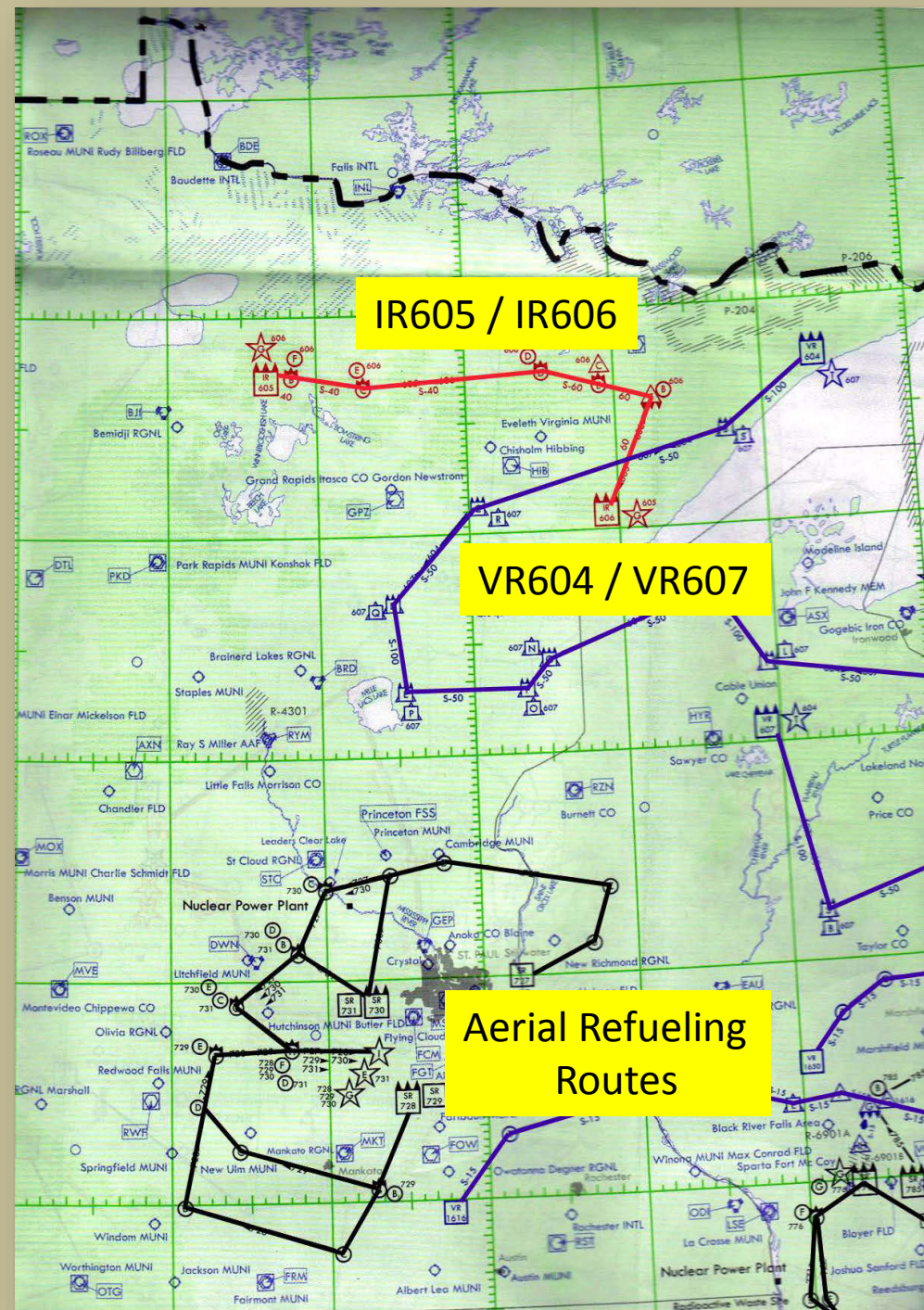


# MTRs

There are three primary MTRs in Minnesota.

Status is updated daily as noted on Aircraft Status Report

Aviation Desk can deconflict airspace if needed





A detailed map of the Great Lakes region, showing the border between the United States (Minnesota, Wisconsin) and Canada (Ontario). The map includes major cities like Minneapolis, St. Paul, Green Bay, and Sault Ste. Marie, as well as numerous lakes and national parks. A blue rectangular box is superimposed over the center of the map, containing the text "BORDER OPS".

# BORDER OPS

# US / Canadian Border Issues

122.925 is a dedicated frequency 2 miles either side of border

Border Patrol / Airbust

Unmanned Aircraft Systems (UAS)

Quickstrike Agreement



# Border Crossing Procedures

The Air Desk at MIFC will:

- Call Minneapolis Center Watch Desk (FAA), Customs and Border Protection, and AMOC with aircraft and flight info.
- Provide aircraft and pilot information to the requesting dispatch office.

Canadian fire agency will advise US aircrew:

- Where to land for fuel
- Confirm CBSA has been advised and clearance to land has been obtained



# Pilot's Responsibilities

## Quickstrike:

- Pilots do not need to file a flight plan
- Contact Fire Center with flight information
- Prior to crossing the border, ensure aircraft will squawk the frequency assigned by the FAA



# Pilot's Responsibilities

## Pre-positioning

- Pilots need to file a flight plan
- Contact Fire Center with flight information
- Prior to departure, pilot should contact CANPAS and eAPIS with aircraft and pilot information
- Prior to crossing the border, ensure aircraft will squawk frequency assigned by the FAA



Program Services Division  
3<sup>rd</sup> Floor, 2265 St. Laurent Blvd.  
Ottawa, Ontario  
K1G 4K3

December 5, 2016

Ontario Ministry of Natural Resources  
Aviation Forest Fire Emergency Services  
Dryden Fire Management Centre  
P.O. Box 850  
Ghost Lake Road  
Dryden, Ontario  
P8N 2Z5

Confidential  
Attention: Mike Shapland

Re: Entry of Aircraft into Canada (Northern Ontario Region - Northwestern District)

The Canada Border Services Agency acknowledges that Canadian and United States aircraft are required to fly between Canada and the United States for the purposes of fighting fires in the border lakes areas.

The aircraft may be required landing at various border lake areas in Canada for refueling purposes, and at other locations for emergency assistance/evacuation. As long as the entry into Canada remains restricted for those purposes, the following procedures that will be in effect beginning January 1, 2017 and remain in effect for the 2017 calendar year.

1. Contact the local management responsible for the fire area as far in advance as possible:

- Sault Ste Marie Superintendent  
(North of Huntsville up to Marathon)  
Telephone: 705-941-3063 Fax: 705-941-3068
- Thunder Bay Superintendent  
(Marathon through to Saganaga Lake area)  
Telephone: 807-626-1606 Fax: 807-626-0117
- Fort Frances Superintendent  
(Fort Frances, Dryden, Rainy River and West to the Manitoba border)

# Canadian Customs Letter

For placement in the Tanker

# CIRCUIT DISCIPLINE



# **FIVE CHARACTERISTICS OF A QUALITY CIRCUIT**

- Direct, efficient, shortest possible turnaround time
- All aircraft following same flight pattern
- Coordinated and controlled
- Well communicated
- Rhythmic

# STAGGER OR GROUP FLIGHT

- ATGS will determine staggered or group flight as appropriate for each fire
- Staggered flight
  - Short turnarounds
  - Smaller scoop lakes
  - Tactics may dictate
    - Multiple targets
    - Changing conditions

# STAGGER OR GROUP FLIGHT

- Group flight
  - Longer turnarounds
  - Adequate size scoop lake
  - Working closely with ground suppression
  - Approximate half mile separation recommended or approximately 15 seconds between drops
  - Adequate spacing is required to evaluate drops and make adjustments for subsequent drops to effectiveness

MNDNR does not support formation flying





# CIRCUIT DISCIPLINE

- **EXPECTATIONS**

- Scooper pilots will “call up” from the lake on every scoop
- Scooper pilots will contact the ATGS at a checkpoint if established on long turns
- Freelancing will not be tolerated. All deviations from the established circuit flight pattern must be communicated/pre-approved

# CIRCUIT DISCIPLINE

- **ENCOURAGED**

- Pilot to pilot communications/reports
- Continuously assess risk/benefit-not all fires are urgent, not all phases of the fire are urgent
- If there is a need to pass another tanker, pass on the way back to the lake-communicate your intent
- Work as a team-pilots and air attack

# SAFETY

## SAFECOM v. 2016 AVIATION SAFETY COMMUNIQUE

Reported By (Optional)	
<b>Name</b>	<b>Phone</b>
Click here to enter text.	Click here to enter text.
<b>Organization</b>	<b>Date</b>
Click here to enter text.	Select date

### EVENT

Date	Local Time	Injuries	Damage	Location	State
Date	24 hr format	Y/N	Y/N	Click here to enter text.	State

### MISSION

<b>Type</b> (PAX, Cargo, Recon, Sling, Long Line, etc.)	<b>Procurement</b> (Contract, CWN, Rental, Fleet, Cooperator, etc)	
Click here to enter text.	Click here to enter text.	
<b>Departure Point</b>	<b>Destination</b>	
Click here to enter text.	Click here to enter text.	
<b>Number of Persons Onboard</b>	<b>Special Use</b>	<b>Hazardous Materials Onboard</b>
Select	Y/N	Y/N

### AIRCRAFT

N #	Manufacturer	Model	Owner/Operator	Pilot
N #	Manufacturer	Model	Owner/Operator	Pilot

### NARRATIVE

*Please provide a brief explanation of the event. Use additional sheet if necessary.*

Click here to enter text.

Select HOS/FWOS/Pilot, #

- Safety is a priority in the MNDNR Aviation Program.
- Identifying potential safety issues is encouraged.
- Reporting safety related and/or mechanical occurrences is supported and respected.
- Our safety program is supportive and not punitive.
- **IF YOU SEE SOMETHING,**
- **SAY SOMETHING!**



**QUESTIONS?**

**ADDITIONAL COMMENTS?**

**MISSED ITEMS?**