



Communications Altitude & Geographic Restrictions

In accordance with CAPR 100-1, paragraph 7-14, CAP National Headquarters may issue guidance on altitude restrictions on CAP's VHF-FM frequencies. When such restrictions are issued, they may not be more restrictive than required by frequency management agencies regulating CAP, and international agreements.

CAP is working with the Air Education and Training Command (AETC) Spectrum Management Office and the Air Force Frequency Management Agency (AFFMA) to fully document CAP VHF-FM assignments, including altitude authorizations, however some legacy users of CAP's frequencies may remain for some time and CAP must be sensitive to these users, including interference caused by CAP operating aircraft at various attitudes.

The following altitude restrictions apply until further notice:

- **In the border zones with Canada and Mexico, CAP's assigned VHF-FM frequencies may not **under any circumstances** be used above 3,000 feet AGL, based on international agreements.**
- **Except in the Canadian and Mexican border zones, CAP may operate on assigned VHF-FM frequencies at any altitude (up to 12,500 feet AGL) needed to safely and effectively execute assigned missions.**
 - This rule is based on informal guidance from AETC and AFFMA pending completion of all required frequency documentation actions.

Border Zones.

The Canadian Border Zone for the continental U.S. is established by International Treaty and is referred to as "Line A". For Alaska, it is referred to as Line C. These lines are specifically defined in the Treaty, and Line A is depicted approximately in the picture below:



Detailed maps showing the exact position of Line A in each affected Wing are available on the Operations Support and NTC webpages.

The Mexican Border zone is also established by International Treaty and is approximately 140 km (90.1 statute miles) from the Border. It is depicted in the map below:



CAP Radio Frequency Restrictions – Canadian Border Zone

In accordance with CAPR 100-1, paragraph 8-6, CAP National Headquarters may issue guidance on geographically defined Communications restrictions, because of international agreements and other legal issues. Operators entering those areas must make themselves aware of any restrictions in effect.

The following is a compendium of all the restrictions on CAP use of assigned channels in the Canadian Border Zone (BZ). CAP's radio authorizations are significantly altered within this zone, compared to the rest of the country, and all CAP stations must restrict their operations accordingly.

These restrictions exist in six areas across the United States, and listed below from East to West. They are as follows:

First Area: Northeast Region including Maine, New Hampshire, Vermont, New York and Pennsylvania.

This is the most complex and restricted area for CAP. Close attention must be paid to proximity to the Border Zone.

Simplex: Within the Border Zone, ONLY Air 1 and CAPGUARD are authorized at full power and without restrictions, other than the 3000 foot AGL limitation (see above). Note that there are extensive paging operations in Canada on AIR 1 and interference is likely, particularly in the vicinity of population centers. All of the other CAP Simplex channels, with the exception of TAC 1, may be used within the Border Zone at 5 watts output power or less; however, airborne operation, even at 5 watts or less, has the potential to interfere with Canadian operations, and airborne use of Simplex channels other than AIR 1 and CAPGUARD should be minimized for this reason.

TAC 1 is in use throughout the NER area as a CAP repeater input, and operations on this channel must conform to the recommendations of the Region Repeater Committee or other Region authority.

Repeater: Within the Border Zone, CAP's standard repeater input frequencies are not authorized, including the inputs to the Tactical repeater channels. Repeaters located within or immediately adjacent to the Border Zone have special, different input frequencies, and these channels can be identified by the use of Designators from R101 thru R108. These channels may be used by all CAP stations to communicate through the Border Zone repeaters, regardless of whether the station is inside the Border Zone or not.

Note that use of the Tactical repeater channels is also not authorized within the Border Zone, and only the special Border Zone tactical channel is authorized.

CAP aircraft are authorized to access Border Zone repeaters while within the Border Zone, however there is a 3000 foot AGL restriction on all such operations while within the Border Zone.

Altitude Restrictions: Within the Border Zone, CAP aircraft are only authorized to transmit below 3000 feet AGL.

Outside of the Border Zone, CAP is authorized to operate "occasionally" up to 12,500 feet AGL, HOWEVER -- CAP aircraft that access the normal CAP repeaters or utilize Simplex channels other than AIR 1, TAC 1 or CAPGUARD should be aware of the potential for interference to Canadian operations, particularly if they operate above 3000 feet AGL. Guidance from NHQ should be sought if a proposed activity has the potential to interfere with Canadian operations.

Second Area: Great Lakes Region including Ohio, Michigan and Wisconsin.

Simplex: Channels CAPGUARD and TAC 1 may be used without restriction within the Border Zone. CC 1, AIR 1 and AIR 2 may be used within the Border Zone, however Canadian operations at several locations must be avoided. These areas are defined as follows:

CC 1: 60 km distance from:

Sault Ste. Marie 46 30' 17"N X 84 19' 20"W

Leamington 42 02' 26"N X 82 36' 02"W

Chatam 42 25' 00"N X 82 11' 59"W

Oxford 42 48' 11"N X 81 57' 09"W

AIR 1 : 120 km distance from:

Sault Ste. Marie 46 30' 17"N X 84 19' 12"W

Sarnia 42 58' 25"N X 82 23' 20"W

Wallace Burg 42 35' 05"N X 82 27' 02"W

Windsor 42 18' 25"N X 83 01' 52"W

AIR 2: 220 km distance from:

Tehkummah 45 39' 10"N X 82 00' 57"W

Watford 43 01' 43"N X 81 57' 09"W

Brantford 43 08' 18"N X 80 15' 48"W

Note: Airborne operations within the Border Zone must not exceed 3,000 feet AGL. Use of CC 2 is not authorized within the Border Zone, and airborne operations outside the Border Zone should ensure that interference to Canadian Operations is minimized.

All of the other CAP Simplex channels may be used within the Border Zone at 5 watts output power or less; however, airborne operation, even at 5 watts or less, has the potential to interfere with Canadian operations, and airborne use of Simplex channels other than TAC 1 and CAPGUARD should be minimized for this reason.

Operations on TAC 1 in Ohio and Michigan need to be aware of the use of this channel as a repeater input in Pennsylvania and restrict their use of it to preclude interference to CAP repeaters there.

Repeater: Operation on the input to CAP Repeater Channel 1 and the Tactical repeater are not authorized within the Border Zone, and all repeaters located in or near the Border Zone have been moved

to Channel 2. Operations using the tactical repeaters within the Border Zone MUST utilize R64 or other authorized Channel 2 repeater frequencies ONLY.

Altitude Restrictions: Within the Border Zone CAP aircraft are only authorized to transmit below 3,000 feet AGL.

Outside of the Border Zone, CAP is authorized to operate "occasionally" up to 12,500 feet AGL, HOWEVER --CAP aircraft that access Channel 1 CAP repeaters or utilize Simplex channels other than AIR 1, TAC 1 or CAPGUARD should be aware of the potential for interference to Canadian operations, particularly if they operate above 3,000 feet AGL. Guidance from NHQ should be sought if a proposed activity has the potential to interfere with Canadian operations.

Third Area: North Central Region including Minnesota and North Dakota.

Simplex: Channels TAC 1 and AIR 1 may be used without restriction within the Border Zone. CC 1 and CAPGUARD may be used within the Border Zone with the following restrictions:

CC 1: Within 120 km distance of:

Minton 39 06' 10"N X 104 44' 35"W

CAPGUARD: Within 120 km distance of:

Halbrite 49 30' 31"N X 103 35' 16"W

All of the other CAP Simplex channels may be used within the Border Zone at 5 watts output power or less; however, airborne operation, even at 5 watts or less, has the potential to interfere with Canadian operations, and airborne use of Simplex channels other than TAC 1 and AIR 1 should be minimized for this reason.

Repeater: The input frequency used for CAP Channel 2 repeaters is not authorized within the Border Zone and therefore all CAP repeaters within or near the Border Zone have been moved to Channel 1. Use of Channel 1 and Tactical repeaters is authorized within the Border Zone.

Altitude Restrictions: Within the Border Zone, CAP aircraft are only authorized to transmit below 3,000 feet AGL.

Outside of the Border Zone, CAP is authorized to operate "occasionally" up to 12,500 feet AGL, HOWEVER -- CAP aircraft that access Channel 2 CAP repeaters or utilize Simplex channels other than AIR 1 or TAC 1 should be aware of the potential for interference to Canadian operations, particularly if they operate above 3000 feet AGL. Guidance from NHQ should be sought if a proposed activity has the potential to interfere with Canadian operations.

Fourth Area: Rocky Mountain Region, including Montana and Idaho.

Simplex: TAC 1 and AIR 1 may be used in the Border Zone without restriction other than the 3000 foot AGL restriction.

CC 1 may be used except for within 120 km distance of:

Minton 49 06' 10"N X 104 44' 35"W

Maple Creek 49 55' 30"N X 109 28' 48"W

CC 2, AIR 2 and CAPGUARD are not authorized within the Border Zone.

Repeater: The input frequency used for CAP Channel 2 repeaters is not authorized within the Border Zone, therefore all CAP repeaters within or near the Border Zone have been moved to Channel 1. Use of Channel 1 and Tactical repeaters is authorized within the Border Zone

Altitude Restrictions: Within the Border Zone, CAP aircraft are only authorized to transmit below 3,000 feet AGL.

Outside of the Border Zone, CAP is authorized to operate "occasionally" up to 12,500 feet AGL, HOWEVER -- CAP aircraft that access Channel 2 CAP repeaters or utilize Simplex channels other than AIR 1 or TAC 1 should be aware of the potential for interference to Canadian operations, particularly if they operate above 3,000 feet AGL. Guidance from NHQ should be sought if a proposed activity has the potential to interfere with Canadian operations.

Fifth Area: Pacific Region – Washington State.

Simplex: TAC 1 and AIR 1 may be used in the Border Zone without restriction other than the 3,000 foot AGL restriction.

CC 1 may be used except for within 120 km distance of:

Cowichan 48 49' 29"N X 124 03' 01"W

CC 2, AIR 2 and CAPGUARD are not authorized within the Border Zone.

Repeater: The input frequency used for CAP Channel 2 repeaters is not authorized within the Border Zone, therefore all CAP repeaters within or near the Border Zone have been moved to Channel 1. Use of Channel 1 and Tactical repeaters is authorized within the Border Zone

Altitude Restrictions: Within the Border Zone, CAP aircraft are only authorized to transmit below 3,000 feet AGL.

Outside of the Border Zone, CAP is authorized to operate "occasionally" up to 12,500 feet AGL, HOWEVER -- CAP aircraft that access Channel 2 CAP repeaters or utilize Simplex channels other than AIR 1 or TAC 1 should be aware of the potential for interference to Canadian operations, particularly if they operate above 3,000 feet AGL. Guidance from NHQ should be sought if a proposed activity has the potential to interfere with Canadian operations.

Sixth Area: Pacific Region – Alaska.

Simplex: CAP Channels CC 1, CC 2 and AIR 2 may be used in the Border Zone without restriction other than the 3,000 foot AGL restriction.

AIR 1 may be used except within 50 km distance of:

Nass Valley 55 14' 02"N X 129 02' 24"W

CAPGUARD may not be used within the Border Zone.

Repeaters: There is no restriction on the use of CAP repeater frequencies within the Border Zone other than the 3,000 foot AGL limitation.

Altitude Restrictions: Within the Border Zone, CAP aircraft are only authorized to transmit below 3000 feet AGL.

Outside of the Border Zone, CAP is authorized to operate "occasionally" up to 12,500 feet AGL, however aircraft utilizing CAPGUARD should be aware of the potential for interference to Canadian operations, particularly if they operate above 3,000 feet AGL. Guidance from NHQ should be sought if a proposed activity has the potential to interfere with Canadian operations.

CAP Radio Frequency Restrictions – Mexican Border Zone

The Mexican Border Zone is an area approximately 140 kilometers (90.1 statute miles) inside the U.S.-Mexican border. Within this area, CAP must not utilize airborne transmitters above 3,000 feet AGL when operating on CC1, CC2, TAC1 or any on repeater channel. Note that the repeater output frequencies are not affected and may be used IAW CAPR 100-1 8-3b.

This document is issued in accordance with CAPR 100-1, paragraphs 7-15 and 8-6.

For more information on Communications Altitude Restrictions:

Contact NHQ CAP/DOS at 888-211-1812 ext. 322, or email dos@capnhq.gov.

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