

AFTRCC-FAA Swap Project for 8.33 KHz Channels

The Boeing Company

**St. Louis, MO
Wichita, KA
Seattle, WA
Everett, WA
Renton, WA
West Tiger Mountain, WA
Moses Lake, WA
Glasgow, MT**

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by

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Why an Experimental License is Necessary

According to the FAA, that in order to continue using the 8.33 KHz channels noted below for continued evaluation with the AFTRCC-FAA swap project, we need to file for an experimental license with the OET. The FAA and AFTRCC has provided a blanket coordination.

Purpose of Operation

The FAA has proposed to swap 50 kHz of their spectrum in the 136 MHz band for two AFTRCC frequencies in the 123 MHz band to use for Air Traffic Control purposes. Mr. Balanga at FAA HQ in DC has agreed to allow AFTRCC to evaluate the 50 kHz of spectrum in 8.33 and 25 kHz modes to determine if they are suitable for Flight Test operations. A copy of the email correspondence between Mr. Balanga and the AFTRCC Point of Contact for the swap is part of this application as an Exhibit. The equipment to be used will be various models of dual mode (8.33/25 kHz) portable (hand held), mobile (air and ground) and base station (ground) radios that are FCC Part 87 certified for 25 kHz operations with emission designator 6K00A3E, and meet ICAO standards for 8.33 kHz operations with emission designator 5K00A3E.

The objectives for AFTRCC are:

- Determine if this spectrum is currently free of interference.
- Compare 25 kHz operations to 8.33 kHz operations with respect to range, adjacent channel interference and quality of communications.

- Relieve congestion for licensees in areas where all VHF Flight Test frequencies are in use through narrow banding to 8.33 kHz spacing in the 50 kHz of spectrum from the FAA.
- Acquire the ability to test 8.33 kHz operations on aircraft prior to sending them to customers in countries where they are required to use 8.33 kHz spacing.
- Acquire the ability to test near the top end of the 118-137 MHz band in addition to the 123 MHz band where all AFTRCC VHF frequencies are currently allocated.

The objectives for the FAA are:

- To acquire two 25 kHz channels for use in VHF air-ground communications that older/existing aircraft radios can tune to. Many older radios will not tune to the 136 MHz band, and in some locations there is a shortage of frequencies available for assignment by the FAA that are compatible with many of the older aircraft radios in current use. If the evaluation results are sufficiently positive, the FAA and AFTRCC are expected to formalize the proposed spectrum swap. This will increase the utilization of the spectrum, help to alleviate congestion, and provide other benefits to the FAA, aircraft owners and AFTRCC as described above in section b.

AFTRCC and FAA Coordination

See coordination Exhibit.

Frequencies, Power and Emission

Note: In addition to the 25 kHz spacing for 136.225 and 136.250 with emission designator 6K00A3E, we are including the 8.33 frequencies with emission designator 5K00A3E that are contained within the two 25 kHz channels for a total of six 8.33 frequencies.

Channel - Frequency	- Emission	- RF Power	- Station Class	- Frequency Tolerance
136.215 - 136.2167	5K00A3A	50 watts	FX	0.0001 %
	5K00A3A	20 watts	MO	0.0005 %
136.230 - 136.2250	5K00A3A	50 watts	FX	0.0001 %
	6K00A3E	50 watts	FX	0.0001 %
	5K00A3A	20 watts	MO	0.0005 %
	6K00A3E	20 watts	MO	0.0005 %
136.235 - 136.2333	5K00A3A	50 watts	FX	0.0001 %
	5K00A3A	20 watts	MO	0.0005 %
136.240 - 136.2417	5K00A3A	50 watts	FX	0.0001 %
	5K00A3A	20 watts	MO	0.0005 %
136.255 - 136.2500	5K00A3A	50 watts	FX	0.0001 %
	6K00A3A	50 watts	FX	0.0001 %
	5K00A3A	20 watts	MO	0.0005 %
	6K00A3A	20 watts	MO	0.0005 %
136.260 - 136.2583	5K00A3A	50 watts	FX	0.0001 %
	5K00A3A	20 watts	MO	0.0005 %

Locations

St. Louis, MO

250 miles radius of

Coordinates: 38-45-4.1N 090-21-23.8 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Wichita, KA

250 miles radius of

Coordinates: 37-37-39 N 097-16-40 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Seattle, WA

250 miles radius of

Coordinates: 47-32-21N 122-18-44 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Everett, WA

250 miles radius of

Coordinates: 47-55-32 N 122-16-28 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Renton, WA

250 miles radius of

Coordinates: 47-29-54 N 122-13-06 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

West Tiger Mountain, WA

250 miles radius of

Coordinates: 47-30-16 N 121-58-20 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Moses Lake, WA

250 miles radius of

Coordinates: 47-12-07 N 119-17-54 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Glasgow, MT

250 miles radius of

Coordinates: 48-25-21 N 106-32-10 W

Altitude: Surface to 50,000 feet

Units: 3 FX, 10 MO

Schedule

At any time, 24 hours a day, 7 days a week, as needed.

Stop Buzzer Contact Information

St. Louis, MO

Pitcher, James, D; Flight Operations Radio; 314-232-2917
Neumeister, Brian, K; Flight Operations Radio; 314-232-2917

Wichita, KA

Claussen, Robert W; Manager; 316-977-1762
Woodson, Frank L; Primary Tower Operator; 316-977-2970

Seattle, WA
Everett, WA
Renton, WA
West Tiger Mountain, WA
Moses Lake, WA
Glasgow, MT

Thomas F. Fisher (Primary) (206) 544-2348
Roger Fletcher (Alternate) (206) 544-2345

Equipment and Antennas

Generic Part 87 certified equipment.