Christian Ramsey <christian@uavionix.com>

FAA Concurrence of Record TRK 210519, Project: NFECR07/12/2021(2)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov> Wed, Aug 4, 2021 at 7:24 AM
To: christian@uavionix.com
Cc: Rodney.Murphy@faa.gov, Lorena.Carvajal@faa.gov, Surya.CTR.Kanchiraju@faa.gov, Clifford.CTR.Vines@faa.gov, patrick.ctr.bledzki@faa.gov

Dear christian@uavionix.com,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 210519 is assigned an FAA Coordination number NG T210537 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: SUPPORT OF UAVIONIX TESTING OF C-BAND UAS C2 RADIOS FOR COMPLIANCE WITH RTCA DO-362A AND EVENTUAL TSO-C213A. TWO MAIN LOCATIONS FOR GRS (GRAND FORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 NMI.SIX CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS ANTENNA IS STEERABLE WITH +/- 60 DEGREES OF 120 DEGREE AZIMUTH.

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 1/31/2022; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T210537
Frequency	M5050.9475
City	GRAND FORKS
State	ND
Transmitter Radius	0010
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Antenna Height	0030
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W

Antenna Type	PHASEDARRY

Best regards,

FAA Spectrum Engineering Services

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2 attachments

TRK 210519_NG T210537_Card3_Approved.txt
1K

NTIA-Card3-Descriptions.pdf
258K

Christian Ramsey <christian@uavionix.com>

FAA Concurrence of Record TRK 210520, Project: NFECR07/12/2021(2)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov> Wed, Aug 4, 2021 at 7:26 AM
To: christian@uavionix.com
Cc: Rodney.Murphy@faa.gov, Lorena.Carvajal@faa.gov, Surya.CTR.Kanchiraju@faa.gov, Clifford.CTR.Vines@faa.gov, patrick.ctr.bledzki@faa.gov

Dear christian@uavionix.com,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 210520 is assigned an FAA Coordination number NG T210538 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: SUPPORT OF UAVIONIX TESTING OF C-BAND UAS C2 RADIOS FOR COMPLIANCE WITH RTCA DO-362A AND EVENTUAL TSO-C213A. TWO MAIN LOCATIONS FOR GRS (GRAND FORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 NMI.SIX CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS ANTENNA IS STEERABLE WITH +/- 60 DEGREES OF 120 DEGREE AZIMUTH.

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 1/31/2022; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T210538
Frequency	M5051.1625
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Antenna Height	0030
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W

Antenna Type	PHASEDARRY

Best regards,

FAA Spectrum Engineering Services

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2 attachments

TRK 210520_NG T210538_Card3_Approved.txt
1K

NTIA-Card3-Descriptions.pdf
258K

uAvionix

Christian Ramsey <christian@uavionix.com>

FAA Concurrence of Record TRK 210521, Project: NFECR07/12/2021(2)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov> Wed, Aug 4, 2021 at 7:27 AM
To: christian@uavionix.com
Cc: Rodney.Murphy@faa.gov, Lorena.Carvajal@faa.gov, Surya.CTR.Kanchiraju@faa.gov, Clifford.CTR.Vines@faa.gov, patrick.ctr.bledzki@faa.gov

Dear christian@uavionix.com,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 210521 is assigned an FAA Coordination number NG T210539 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: SUPPORT OF UAVIONIX TESTING OF C-BAND UAS C2 RADIOS FOR COMPLIANCE WITH RTCA DO-362A AND EVENTUAL TSO-C213A. TWO MAIN LOCATIONS FOR GRS (GRAND FORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 NMI.SIX CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS ANTENNA IS STEERABLE WITH +/- 60 DEGREES OF 120 DEGREE AZIMUTH.

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 1/31/2022; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T210539
Frequency	M5051.3375
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Antenna Height	0030
Receiver Latitude	475512.76N
Receiver Longitude	0970117.52W

Antenna Type	PHASEDARRY

Best regards,

FAA Spectrum Engineering Services

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2 attachments

TRK 210521_NG T210539_Card3_Approved.txt
1K

NTIA-Card3-Descriptions.pdf
258K

Christian Ramsey <christian@uavionix.com>

FAA Concurrence of Record TRK 210522, Project: NFECR07/12/2021(2)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov> Wed, Aug 4, 2021 at 7:32 AM
To: christian@uavionix.com
Cc: Rodney.Murphy@faa.gov, Lorena.Carvajal@faa.gov, Surya.CTR.Kanchiraju@faa.gov, Clifford.CTR.Vines@faa.gov, patrick.ctr.bledzki@faa.gov

Dear christian@uavionix.com,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 210522 is assigned an FAA Coordination number NG T210540 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: SUPPORT OF UAVIONIX TESTING OF C-BAND UAS C2 RADIOS FOR COMPLIANCE WITH RTCA DO-362A AND EVENTUAL TSO-C213A. TWO MAIN LOCATIONS FOR GRS (GRAND FORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 NMI.SIX CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS ANTENNA IS STEERABLE WITH +/- 60 DEGREES OF 120 DEGREE AZIMUTH.

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 1/31/2022; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T210540
Frequency	M5051.5925
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Antenna Height	0030
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W

Antenna Type	PHASEDARRY

Best regards,

FAA Spectrum Engineering Services

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2 attachments

TRK 210522_NG T210540_Card3_Approved.txt
1K

NTIA-Card3-Descriptions.pdf
258K

uAvionix

Christian Ramsey <christian@uavionix.com>

FAA Concurrence of Record TRK 210523, Project: NFECR07/12/2021(2)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov> Wed, Aug 4, 2021 at 7:33 AM
To: christian@uavionix.com
Cc: Rodney.Murphy@faa.gov, Lorena.Carvajal@faa.gov, Surya.CTR.Kanchiraju@faa.gov, Clifford.CTR.Vines@faa.gov, patrick.ctr.bledzki@faa.gov

Dear christian@uavionix.com,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 210523 is assigned an FAA Coordination number NG T210541 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: SUPPORT OF UAVIONIX TESTING OF C-BAND UAS C2 RADIOS FOR COMPLIANCE WITH RTCA DO-362A AND EVENTUAL TSO-C213A. TWO MAIN LOCATIONS FOR GRS (GRAND FORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 NMI.SIX CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS ANTENNA IS STEERABLE WITH +/- 60 DEGREES OF 120 DEGREE AZIMUTH.

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 1/31/2022; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T210541
Frequency	M5052.0225
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Antenna Height	0030
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W

Antenna Type	PHASEDARRY

Best regards,

FAA Spectrum Engineering Services

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2 attachments

TRK 210523_NG T210541_Card3_Approved.txt
1K

NTIA-Card3-Descriptions.pdf
258K

uAvionix

Christian Ramsey <christian@uavionix.com>

FAA Concurrence of Record TRK 210524, Project: NFECR07/12/2021(2)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov> Wed, Aug 4, 2021 at 7:35 AM
To: christian@uavionix.com
Cc: Rodney.Murphy@faa.gov, Lorena.Carvajal@faa.gov, Surya.CTR.Kanchiraju@faa.gov, Clifford.CTR.Vines@faa.gov, patrick.ctr.bledzki@faa.gov

Dear christian@uavionix.com,

The FAA Spectrum Engineering Services has completed the review of your Frequency Coordination Request.

TRK 210524 is assigned an FAA Coordination number NG T210542 that indicates FAA's coordination that may or may not include operational limits/conditions as part of the requirement for FAA concurrence. The FAA Spectrum Engineering Services has provided the following comments:

COMMENTS: SUPPORT OF UAVIONIX TESTING OF C-BAND UAS C2 RADIOS FOR COMPLIANCE WITH RTCA DO-362A AND EVENTUAL TSO-C213A. TWO MAIN LOCATIONS FOR GRS (GRAND FORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 NMI.SIX CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS ANTENNA IS STEERABLE WITH +/- 60 DEGREES OF 120 DEGREE AZIMUTH.

Please note that this concurrence does not constitute authority to transmit. Your authority to transmit must be obtained from the FCC.

Please provide this concurrence notice to the FCC as part of your frequency application, to demonstrate completion of the FAA coordination process. The FAA Coordination number is only valid until 1/31/2022; if you need an extension, please submit an inquiry via WebFCR .

The attached file contains a Card 3 format with all technical and operational parameters; operations are required to be contained within these parameters for the FAA's concurrence to remain valid. If any of these parameters change, the license to transmit shall be re-coordinated with the FAA and updated with the FCC. A document that explains each field of the Card 3 format in plain text is attached.

The following Revision Table outlines key parameters of this coordination:

Attribute	Record Parameter
Serial Number	NG T210542
Frequency	M5052.4525
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Antenna Height	0030
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W

Antenna Type	PHASEDARRY

Best regards,

FAA Spectrum Engineering Services

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2 attachments

TRK 210524_NG T210542_Card3_Approved.txt
1K

NTIA-Card3-Descriptions.pdf
258K