



FAA Concurrence of Record TRK 210458, Project: NFECR07/12/2021(1)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov>

Wed, Aug 4, 2021 at 7:23 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 210458 is assigned an FAA Coordination number NG T210476 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 F ORKS,ND AND ANGUS,MN) WITH SOME LIMITED GROUND MOBILITY UP TO 10 [NMI.SI](#) X CHANNELS (M5050.9475;M5051.1625;M5051.3375;M5051.5925;M5052.0225;M5052.4525) WILL BE USED BIRECTIONALLY TO SUPPORT THE TEST OPERATIONS.GRS AN TE NNA 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 T210476
Frequency	M5050.9475
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W
Antenna Type	DIPOLE

Flight Level	100
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Best regards,

FAA Spectrum Engineering Services

2 attachments



TRK 210458_NG T210476_Card3_Approved.txt
2K



NTIA-Card3-Descriptions.pdf
258K



FAA Concurrence of Record TRK 210459, Project: NFECR07/12/2021(1)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov>

Wed, Aug 4, 2021 at 7:25 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 210459 is assigned an FAA Coordination number NG T210477 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 T210477
Frequency	M5051.1625
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W
Antenna Type	DIPOLE

Flight Level	100
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Best regards,

FAA Spectrum Engineering Services

2 attachments



TRK 210459_NG T210477_Card3_Approved.txt
2K



NTIA-Card3-Descriptions.pdf
258K



FAA Concurrence of Record TRK 210460, Project: NFECR07/12/2021(1)

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 210460 is assigned an FAA Coordination number NG T210478 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 T210478
Frequency	M5051.3375
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W
Antenna Type	DIPOLE

Flight Level	100
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Best regards,

FAA Spectrum Engineering Services

2 attachments

 **TRK 210460_NG T210478_Card3_Approved.txt**
2K

 **NTIA-Card3-Descriptions.pdf**
258K



FAA Concurrence of Record TRK 210461, Project: NFECR07/12/2021(1)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov>

Wed, Aug 4, 2021 at 7:31 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 210461 is assigned an FAA Coordination number NG T210479 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 T210479
Frequency	M5051.5925
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W
Antenna Type	DIPOLE

Flight Level	100
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Best regards,

FAA Spectrum Engineering Services

2 attachments



TRK 210461_NG T210479_Card3_Approved.txt
2K



NTIA-Card3-Descriptions.pdf
258K



FAA Concurrence of Record TRK 210462, Project: NFECR07/12/2021(1)

donotreply_from_webfcr@faa.gov <donotreply_from_webfcr@faa.gov>

Wed, Aug 4, 2021 at 7:34 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 210462 is assigned an FAA Coordination number NG T210480 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 T210480
Frequency	M5052.0225
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W
Antenna Type	DIPOLE

Flight Level	100
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Best regards,

FAA Spectrum Engineering Services

2 attachments



TRK 210462_NG T210480_Card3_Approved.txt
1K



NTIA-Card3-Descriptions.pdf
258K



FAA Concurrence of Record TRK 210463, Project: NFECR07/12/2021(1)

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 210463 is assigned an FAA Coordination number NG T210481 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 T210481
Frequency	M5052.4525
City	GRAND FORKS
State	ND
Transmitter Radius	0050
Transmitter Latitude	475512.76N
Transmitter Longitude	0970517.52W
Receiver Latitude	475512.76N
Receiver Longitude	0970517.52W
Antenna Type	DIPOLE

Flight Level	100
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Best regards,

FAA Spectrum Engineering Services

2 attachments



TRK 210463_NG T210481_Card3_Approved.txt
1K



NTIA-Card3-Descriptions.pdf
258K