

FAA Concurrence of Record TRK 210582, Project: NFECR07/12/2021(3)

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

Wed, Aug 4, 2021 at 2:50 PM

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 210582 is assigned an FAA Coordination number NG T210600 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 (BIGFORK AND SOMERS,MT) 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.

| Attribute | Record Parameter |
|-----------------------|------------------|
| Serial Number | NG T210600 |
| Frequency | M5050.9475 |
| City | BIGFORK |
| State | МТ |
| Transmitter Radius | 0050 |
| Transmitter Latitude | 480530.48N |
| Transmitter Longitude | 1140618.36W |
| Receiver Latitude | 480530.48N |
| Receiver Longitude | 1140618.36W |
| Antenna Type | DIPOLE |

| Flight Level | 100 |
|--------------|-----|
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FAA Spectrum Engineering Services

2 attachments

TRK 210582_NG T210600_Card3_Approved.txt



FAA Concurrence of Record TRK 210583, Project: NFECR07/12/2021(3)

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

Wed, Aug 4, 2021 at 3:03 PM

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 210583 is assigned an FAA Coordination number NG T210601 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 (BIGFORK AND SOMERS,MT) 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.

| Attribute | Record Parameter |
|-----------------------|------------------|
| Serial Number | NG T210601 |
| Frequency | M5051.1625 |
| City | BIGFORK |
| State | МТ |
| Transmitter Radius | 0050 |
| Transmitter Latitude | 480530.48N |
| Transmitter Longitude | 1140618.36W |
| Receiver Latitude | 480530.48N |
| Receiver Longitude | 1140618.36W |
| Antenna Type | DIPOLE |

| Flight Level | 100 |
|--------------|-----|
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FAA Spectrum Engineering Services

2 attachments

TRK 210583_NG T210601_Card3_Approved.txt



FAA Concurrence of Record TRK 210584, Project: NFECR07/12/2021(3)

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

Thu, Aug 5, 2021 at 3:25 PM

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 210584 is assigned an FAA Coordination number NG T210602 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 (BIGFORK AND SOMERS,MT) 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 2/1/2022; 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.

| Attribute | Record Parameter |
|-----------------------|------------------|
| Serial Number | NG T210602 |
| Frequency | M5051.3375 |
| City | BIGFORK |
| State | МТ |
| Transmitter Radius | 0050 |
| Transmitter Latitude | 480530.48N |
| Transmitter Longitude | 1140617.36W |
| Receiver Latitude | 480530.48N |
| Receiver Longitude | 1140617.36W |
| Antenna Type | DIPOLE |

| Flight Level | 100 |
|--------------|-----|

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2 attachments

TRK 210584_NG T210602_Card3_Approved.txt



FAA Concurrence of Record TRK 210585, Project: NFECR07/12/2021(3)

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

Fri, Aug 6, 2021 at 8:17 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 210585 is assigned an FAA Coordination number NG T210603 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 (BIGFORK AND SOMERS,MT) 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 2/2/2022; 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.

| Attribute | Record Parameter |
|-----------------------|------------------|
| Serial Number | NG T210603 |
| Frequency | M5052.0225 |
| City | BIGFORK |
| State | МТ |
| Transmitter Radius | 0050 |
| Transmitter Latitude | 480530.48N |
| Transmitter Longitude | 1140618.36W |
| Receiver Latitude | 480530.48N |
| Receiver Longitude | 1140618.36W |
| Antenna Type | DIPOLE |

| Flight Level | 100 |
|--------------|-----|
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FAA Spectrum Engineering Services

2 attachments

TRK 210585_NG T210603_Card3_Approved.txt



FAA Concurrence of Record TRK 210586, Project: NFECR07/12/2021(3)

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

Fri, Aug 6, 2021 at 7:51 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 210586 is assigned an FAA Coordination number NG T210604 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 (BIGFORK AND SOMERS,MT) 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 2/2/2022; 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.

| Attribute | Record Parameter |
|-----------------------|------------------|
| Serial Number | NG T210604 |
| Frequency | M5051.5925 |
| City | BIGFORK |
| State | МТ |
| Transmitter Radius | 0050 |
| Transmitter Latitude | 480530.48N |
| Transmitter Longitude | 1140618.36W |
| Receiver Latitude | 480530.48N |
| Receiver Longitude | 1140618.36W |
| Antenna Type | DIPOLE |

| 100 |
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FAA Spectrum Engineering Services

2 attachments

TRK 210586_NG T210604_Card3_Approved.txt



FAA Concurrence of Record TRK 210587, Project: NFECR07/12/2021(3)

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

Fri, Aug 6, 2021 at 8:29 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 210587 is assigned an FAA Coordination number NG T210605 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 (BIGFORK AND SOMERS,MT) 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.

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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.

| Attribute | Record Parameter |
|-----------------------|------------------|
| Serial Number | NG T210605 |
| Frequency | M5052.4525 |
| City | BIGFORK |
| State | МТ |
| Transmitter Radius | 0050 |
| Transmitter Latitude | 480530.48N |
| Transmitter Longitude | 1140618.36W |
| Receiver Latitude | 480530.48N |
| Receiver Longitude | 1140618.36W |
| Antenna Type | DIPOLE |

| Flight Level | 100 |
|--------------|-----|
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FAA Spectrum Engineering Services

2 attachments

TRK 210587_NG T210605_Card3_Approved.txt