

## Connie Diaz

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**From:** Keith Harper  
**Sent:** Friday, April 17, 2020 12:43 PM  
**To:** Tim Wright  
**Cc:** Charles Mathias; Cecilia Sulhoff; Connie Diaz  
**Subject:** Authorization Granted: 5850-5895 MHz Emergency STA Request - Bertram Communications ("Bertram")  
**Attachments:** Bertram 5.8 STA Request.pdf

Mr. Wright,

The application for an emergency STA filed by Bertram Communications ("Bertram") on April 13, 2020 is granted via this email. The applicant will be using the 5850-5895 MHz band to provide relief during the state-of-emergency caused by the spread of COVID-19 throughout the United States. Applicant is advised that it must ensure proper protection of incumbents in the 5850-5895 MHz band and otherwise comply with the conditions described below.

This grant is for a period of 60 days, provided the applicant files a complete FCC Form 601 application for an STA to continue its operations in the 5850-5895 MHz band within 10 days of today's date (April 17, 2020). If applicant fails to file a complete FCC Form 601 application by this date, its STA will terminate at midnight on that date. Applicant's use of the 5850-5895 MHz band is authorized on a non-interference basis and is limited by the conditions described below.

By utilizing the 5850-5895 MHz band pursuant to this STA, the applicant agrees to the following conditions:

- It understands that operations under this STA are subject to the general conditions of operation set forth in Section 15.5 of the Commission's rules (including that its access is non-exclusive and not subject to interference protection). STA recipients with overlapping grants must work together to resolve interference concerns.
- It is responsible for ensuring that it does not cause interference to existing licensees. It must review existing DSRC licenses in this band to determine any nationwide, statewide, or countywide licenses that cover or are adjacent to its service area, as well as any site licenses that are near that service area. It must then contact each of these affected licensees before beginning operation and provide its contact information so that the licensee can inform it of interference issues. It may then begin operation; it need not await a response or approval. If a complaint of interference cannot be timely resolved, operation under this STA must cease. It may not operate within 2 kilometers of any site license, regardless of notification or actual interference.
- It will operate consistent with the power levels in Section 15.407(a)(3) of the Commission's rules.
- It will attenuate emissions at 5895 MHz to a level of -27dBm or less.
- It understands that any emergency STA grant is conditioned on the applicant filing a formal STA application on FCC Form 601 (Radio Service Code QQ) within 10 days of emergency STA grant. As part of that filing, it must provide a phone number which connects directly to a person who is able to immediately resolve any interference concerns arising from its operations pursuant to this STA.
- Upon expiration of this STA, it will cease operating in the 5850-5895 MHz band and retune equipment to operate in compliance with the Commission's equipment certifications; it will confirm with the

Bureau within 14 days of expiration that it has successfully returned all of its devices to be compliant with Commission certifications.

- It understands that operations under this STA shall protect federal radiolocation services operating in the 5850-5895 MHz band and, to afford such protection, operations under this STA are prohibited within 75 kilometers of the locations listed in the table below and any additional sites specified by the Commission after initial grant.
- It understands that any structure utilized to operate pursuant to this STA must comply with the height limitations specified in Section 17.7 of the Commission’s rules or must be registered with the FAA.

Operation is NOT AUTHORIZED in the following county because it is completely within 75 km of federal radiolocation sites.

- Bertram: Door, WI

The following are federal radiolocation services locations. Operations under this STA are not permitted within 75 kilometers of these locations:

<b>Location</b>	<b>State</b>	<b>Latitude</b>	<b>Longitude</b>
Ft. Rucker	AL	311947N	0854255W
Redstone Arsenal	AL	343630N	0863610W
Ft. Huachuca	AZ	313500N	1102000W
Yuma Proving Grounds	AZ	330114N	1141855W
Naval Ocean Systems Center	CA	324500N	1171000W
Space and Missile Systems Center	CA	335500N	1182200W
Pacific Missile Test Center	CA	340914N	1190524W
Vandenberg AFB	CA	344348N	1203436W
Edwards AFB	CA	345400N	1175200W
Ft. Irwin	CA	351536N	1164102W
Ft. Hunter Liggett	CA	355756N	1211404W
Parks Reserve Forces Training Area	CA	374254N	1214218W
SAN NICOLAS IS	CA	331447N	1193107W
POINT MUGU	CA	340700N	1190900W
VANDENBERG	CA	343458N	1203342W
EDWARDS	CA	345739N	1175442W
PILLAR PT	CA	372952N	1222959W
Ft. Carson	CO	383810N	1044750W
U.S. Air Force Academy	CO	385800N	1044900W
Naval Research Laboratory	DC	385500N	0770000W
Patrick AFB	FL	281331N	0803607W
Tyndall AFB	FL	300412N	0853436W
Eglin AFB	FL	302900N	0863200W
SADDLEBUNCH	FL	243851N	0813622W
VENICE	FL	270437N	0822703W
MACDILL	FL	274843N	0823217W
ANCLOTE	FL	281118N	0824740W
CAPE SAN BLAS	FL	294039N	0852047W

CARABELLEFIELD	FL	295038N	0843946W
FORT WALTON BEACH	FL	302453N	0863958W
EGLIN	FL	303047N	0863256W
Ft. Stewart	GA	315145N	0813655W
Hunter Army Airfield	GA	320100N	0810800W
Ft. Benning	GA	322130N	0845815W
Ft. Gordon	GA	332510N	0820910W
Ft. Gillem	GA	333600N	0841900W
Ft. Shafter	HI	211800N	1574900W
Ft. Riley	KS	385813N	0965139W
Ft. Leavenworth	KS	392115N	0945500W
Ft. Campbell	KY	363950N	0872820W
Ft. Knox	KY	375350N	0855655W
Ft. Polk	LA	310343N	0931226W
Hanscom AFB	MA	422816N	0711725W
Naval Electronic Systems Engineering Activity	MD	381000N	0762300W
Mid-Atlantic Area Frequency Coordinator	MD	381710N	0762500W
Naval Research Laboratory	MD	383927N	0763143W
Army Research Laboratory	MD	390000N	0765800W
Naval Surface Weapons Center	MD	390205N	0765900W
Aberdeen Proving Ground	MD	392825N	0760655W
PATUXENT RIVER	MD	381749N	0762235W
Ft. Leonard Wood	MO	374430N	0920737W
Ft. Bragg	NC	350805N	0790035W
Ft. Dix	NJ	400025N	0743713W
Ft. Monmouth	NJ	401900N	0740215W
Picatinny Arsenal	NJ	405600N	0743400W
White Sands Missile Range	NM	322246N	1062813W
Holloman AFB	NM	322510N	1060601W
Kirtland AFB	NM	350230N	1063624W
WHITESANDS MISSILE RANGE	NM	330000N	1063000W
Nellis AFB	NV	361410N	1150245W
NEVADA TEST SITE	NV	363942N	1155957W
NV TEST TRAINING RANGE	NV	372460N	1163000W
TONOPAH TEST RANGE	NV	374400N	1164300W
Griffiss AFB	NY	431315N	0752431W
Ft. Drum	NY	440115N	0754844W
Wright-Patterson AFB	OH	394656N	0840539W
Ft. Sill	OK	344024N	0982352W
Naval Air Development Center	PA	401200N	0750500W
Charles E. Kelly Support Facility—Oakdale	PA	402357N	0800925W
Arnold AFB	TN	352250N	0860202W
Brooks AFB	TX	292000N	0982600W
Ft. Hood	TX	310830N	0974550W
Ft. Bliss	TX	314850N	1062533W

Midway Research Center	VA	382640N	0772650W
NORFOLK	VA	365505N	0761055W
WALLOPS ISLAND	VA	375137N	0753034W
Yakima Firing Center	WA	464018N	1202135W
Ft. Lewis	WA	470525N	1223510W
Ft. McCoy	WI	440636N	0904127W
Marinette	WI	450600N	0873748W

Keith D. Harper  
Associate Chief, Mobility Division  
Wireless Telecommunications Bureau  
Federal Communications Commission

**Bertram Communications**

**Request for Special Temporary Authority**

Pursuant to Section 1.931(a)(2)(iv) of the Federal Communications Commission's ("FCC" or "Commission") Rules, 47 CFR § 1.931(a)(2)(iv), Bertram Communications ("Bertram") hereby requests Special Temporary Authority ("STA") to deploy and provide point-to-multipoint service in the following counties in Wisconsin:

Brown  
Calumet  
Columbia  
Dane  
Dodge  
Door  
Fond du Lac  
Forest  
Green Lake  
Jefferson  
Kewaunee  
Langlade  
Lincoln  
Manitowoc  
Marathon  
Marinette  
Menominee  
Oconto  
Oneida  
Outagamie  
Ozaukee  
Portage  
Sauk  
Shawano  
Sheboygan  
Washington  
Waupaca  
Waushara  
Winnebago

Bertram seeks use of the 5850-5895 MHz band on a temporary basis for a period of 60 days. Grant of an STA would be consistent with the Commission's March 26, 2020 grant of emergency STA to 33 fixed wireless broadband providers ("WISP STA") and will help Bertram meet the surge in consumer demand for residential fixed broadband services during the COVID-19 pandemic.

Bertram is a fixed wireless internet service provider delivering voice and data services in rural areas of Wisconsin to the residential, commercial, small business, education, healthcare and public sector markets. Bertram relies primarily on unlicensed spectrum for last-mile connections to end users, including the 5 GHz U-NII bands. Many of Bertram's customers have no other alternative to terrestrial broadband services.

As the COVID-19 has spread, federal and local governments have taken increasingly stronger steps to encourage "social distancing." These actions and warnings have resulted in more and more Americans working and learning from their homes, circumstances that are likely to continue for at least several weeks. Over the past few weeks, Bertram has seen bandwidth usage increase by as much as 20 percent since schools have closed and consumers practice "social distancing."

To meet this increase in demand and to ensure that students, consumers, farms and businesses can stay connected with adequate broadband, Bertram requires access to additional spectrum. Bertram currently uses the U-NII bands to deliver fixed broadband service. The U-NII4 band (5850-5925 MHz) is shared with the Dedicated Short-Range Communications ("DSRC") service (Radio Codes IQ and QQ) and certain federal users.

Pursuant to Section 1.931(a)(2)(iv) of the FCC's Rules, the Commission may grant a request for STA upon a finding that there are extraordinary circumstances requiring operation in the public interest and that delay in the institution of such service would seriously prejudice the public interest.

Bertram respectfully submits that grant of this request meets that standard and is in the public interest. Emergency use of the 45 megahertz in the 5850-5895 MHz band will be the best solution for helping to meet the increase in demand for fixed broadband services in the above listed counties of Wisconsin. First, as noted above, many of Bertram's customers have no other alternative to terrestrial broadband services. As COVID-19 has spread, federal and local governments in Bertram's markets have taken increasingly stronger steps to encourage social distancing. These actions and warnings have resulted in more and more Americans working and learning from their homes, circumstances that are likely to continue for at least several weeks, resulting in a profound shift of broadband use to residences. Second, other unlicensed bands, such as U-NII-1 and U-NII-3, are too congested to meet the existing and expected surge in bandwidth demand, including the needs of first responders. Third, Bertram has access to FCC-certified 5 GHz equipment that can be easily and quickly re-tuned via a software update to operate in the 5850- 5895 MHz band. Fourth, this re-tuned equipment will not require installations to customer locations in order for access to be enabled, thereby mitigating the health risks to consumers and installers that would be caused by close human contact in the home.

Bertram also respectfully submits that delay in the institution of the operations requested herein would seriously prejudice the public interest. To meet the increase in demand and to ensure that students, consumers, farms and businesses can continue to stay connected with adequate broadband, Bertram requires temporary access to this additional spectrum so it can increase throughput to its customers. Bertram proposed operations will not cause interference to other licensed operations.

Consistent with the WISP STA, Bertram understands that the following conditions may apply to its STA:

- It understands that operations under this STA are subject to the general conditions of operation set forth in Section 15.5 of the Commission's rules.
- It is responsible for ensuring that it does not cause interference to existing licensees. It must review existing DSRC licenses in this band to determine any nationwide, statewide, or countywide licenses that cover or are adjacent to its service area, as well as any site licenses that are near that service area. It must then contact each of these affected licensees before beginning operation and provide its contact information so that the licensee can inform it of interference issues. It may then begin operation; it need not await a response or approval. If a complaint of interference cannot be timely resolved, operation under this STA must cease. It may not operate within 2 kilometers of any site license, regardless of notification or actual interference.
- It will operate consistent with the power levels in Section 15.407(a)(3) of the Commission's rules.
- It will attenuate emissions at 5895 MHz to a level of -27dBm or less.
- Upon expiration of this STA, it will cease operating in the 5.8 GHz band and retune equipment to operate in compliance with the Commission's equipment certifications; it will confirm with the Bureau within 14 days of expiration that it has successfully retuned all of its devices to be compliant with Commission certifications.
- It understands that operations under this STA shall protect federal radiolocation services operating in the 5.8 GHz band and, to afford such protection, operations under this STA are prohibited within 75 kilometers of designated federal locations and any additional sites specified by the Commission after initial grant.
- It understands that any structure utilized to operate pursuant to this STA must comply with the height limitations specified in Section 17.7 of the Commission's rules or must be registered with the FAA.

Should the Commission have any questions or need additional information, please contact our Engineering Manager on this matter:

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