From: Keith Harper
To: Coran, Steve

Cc: <u>Charles Mathias</u>; <u>Cecilia Sulhoff</u>; <u>Connie Diaz</u>

Subject: Authorization Granted - 5.8 GHz Emergency STA Request

Date: Friday, March 27, 2020 10:00:42 AM
Attachments: LSL2-#367016-v2-STA Blanket Letter.pdf

Mr. Coran,

This email is being sent to counsel of record for the wireless Internet service providers which jointly filed a request on March 20, 2020 for emergency Special Temporary Authorization ("STA") to operate in the 5.8 GHz (5850-5895 MHz) band at the locations described in Attachment 1 to that request. The applicants will be using the 5.8 GHz band to provide relief during the state-of-emergency caused by the spread of COVID-19 throughout the United States

All 33 of the individual applications for an emergency STA contained in that document are granted via this email. These are distinct grants and are for individual applicants; the Commission will treat each grant as independent from any others granted by this email, and each applicant is independently responsible for complying with the conditions of its grant. Applicants are advised that this includes ensuring proper protection of incumbents in the 5.8 GHz band. Listed below are counties which the Commission has identified as either encompassing a DSRC site license or being within the 75 kilometer exclusion zone surrounding a federal radiolocation site.

Each grant is for a period of 60 days, provided the relevant applicant individually files a complete FCC Form 601 application for an STA to continue its operations in the 5.8 GHz band within 10 days of today's date (March 26, 2020). If an applicant fails to file a complete FCC Form 601 application by this date, its STA will terminate at midnight on that date. Each applicant's use of the 5.8 GHz band is authorized on a secondary, non-interference basis and is limited by the conditions described below.

By utilizing the 5.8 GHz band pursuant to this STA, each 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.
- 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.
- 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 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.

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

Location	State	Latitude	Longitude
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 Ligget	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	СО	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 GA	333600N	0841900W
Ft. Shafter	HI	211800N	1574900W
	KS		
Ft. Riley Ft. Leavenworth	KS KS	385813N	0965139W
		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	1063024W
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 NY	431315N 440115N	0752431W 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
Additional Site 1	OH	394640N	0840451W
Additional Site 2	WI	450600N	0873751W

Operation is NOT AUTHORIZED in the following counties because they are completely within 75 km of federal radiologation sites.

- Internet Services LLC: Bernalillo, NM
   Nextlink Internet: Bell and Coryell, TX
- <u>Ridge Wireless, Inc</u>.: San Mateo, CA
- TCC Networks/TCCSkywire: Norfolk and Suffolk, MA
- <u>Virginia Everywhere, LLC</u>: Nelson and Bullitt, KY; Montgomery, MD; and Fairfax and Prince William, VA
- Windfield Enterprise LLC dba Kellin Communications: Douglas, CO

We observe that there are registered incumbent site license locations within at least the following counties:

- <u>Computer Office Solutions, Inc. dba Snappy Internet & Telecom</u>: Broward and Miami-Dade, FL
- Ridge Wireless, Inc: Santa Clara and San Mateo, CA
- <u>Triad Wireless</u>: Maricopa, AZ
- Virginia Everywhere, LLC: Fairfax and Montgomery, VA
- Windfield Enterprise LLC dba Kellin Communications: Elbert and Douglas, CO

In addition, we observe that the following counties are located within 75 km of federal radiologation sites:

- Internet Services LLC: Bernalillo, Sandoval, Santa Fe, Socorro, and Torrance, NM
- MetaLINK Technologies, Inc.: Mercer, OH

- <u>Nextlink Internet</u>: Kiowa, Jackson, Jefferson, Wichita and Tillman in OK; and Wichita, Milam, Lampasas, Bosque, McLennan, Hamilton, Clay, Bell, Mills, Williamson, Falls, San Saba, and Coryell in TX.
- Ridge Wireless, Inc: Santa Clara, Santa Cruz, Monterey, San Benito, and San Mateo, CA
- Rocket Connect, LLC: Cass, MO
- Softcom Internet Communications, Inc.: San Joaquin and Sacramento, CA
- TCC Networks/TCCSkywire: Norfolk, Plymouth, and Suffolk, MA
- <u>Triad Wireless</u>: Pima, AZ
- <u>Virginia Everywhere, LLC</u>: Oldham, Nelson, Bullitt, Washington, Spencer, Anderson, and Shelby, KY; Frederick, Montgomery and Washington, MD; Prince William, Clarke, Loudoun, Warren, Fauquier, Rappahannock, and Fairfax, VA; and Jefferson, WV
- Washington Broadband, Inc.: Yakima, WA
- Windfield Enterprise LLC dba Kellin Communications: Elbert, Pueblo, El Paso and Douglas,
   CO

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

#### VIA EMAIL

Donald Stockdale, Chief Wireless Telecommunications Bureau Federal Communications Commission 445 12<sup>th</sup> Street, SW Washington, DC 20554

Re: Request for Emergency Special Temporary Authority

Dear Mr. Stockdale:

The wireless Internet service providers ("WISPs") listed on <u>Attachment 1</u> to this letter hereby request emergency Special Temporary Authority ("STA") so they can deploy and operate in the 5850-5895 MHz portion of the U-NII-4 band on an unlicensed basis in states and counties listed for each WISP on <u>Attachment 1</u>. Grant of an STA will help the WISPs to meet the surge in consumer demand for residential fixed broadband services during the coronavirus pandemic. The WISPs request an STA for a period of 60 days.

Each of the WISPs provide fixed wireless broadband service in rural areas. They rely primarily on unlicensed spectrum for last-mile connections to end users, including the 5 GHz U-NII bands. Many of the WISPs' customers have no other alternative to terrestrial broadband services.

As the coronavirus 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 days, the WISPs have seen a significant increase in bandwidth usage as more and more schools close and consumers practice "social distancing." Some WISPs are seeing bandwidth increase by as much as 40 percent.

To meet this increase in demand and to ensure that students, consumers, farms and businesses can stay connected with adequate broadband, the WISPs require access to additional spectrum. They currently use the U-NII bands to deliver fixed broadband service. The U-NII-4 band (5850-5925 MHz) is shared with the Dedicated Short-Range Communications ("DSRC") service (Radio Codes IQ and QQ) and certain federal users.

The WISPs believe that emergency use of the 45 megahertz in the 5850-5895 MHz band will be the best solution for helping to meet demand. First, 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. Second, the WISPs have 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. Third, 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.

### Each WISP agrees to the following conditions:

- It will apply individually for STA on FCC Form 601 (Radio Code QQ) within 10 days from grant of this STA request.
- It understands that operations under STA are secondary and do not afford interference protection.
- It will notify the DSRC licensees in their state that they are operating in the 5850-5895 MHz band under STA, and will provide their contact information.
- It will comply with the interference protection provisions of Section 90.371(b) of the FCC's Rules, a copy of which is provided in <u>Attachment 2</u>.
- It will operate consistent with the power levels in Section 15.407(a)(3) of the FCC's Rules.
- It will attenuate emissions at 5895 MHz to -27 dBm or less.
- Upon expiration of the STA, it will cease operating in the 5850-5895 MHz band. For any renewal of the STA, it understands that it will need to request STA on FCC Form 601 (Radio Code QQ).

The WISPs further note that the Commission has recently granted other wireless providers access to additional spectrum to help it meet increased customer demand for broadband during the coronavirus pandemic.<sup>1</sup> The WISPs ask the Commission to afford them, their customers and their communities the same benefit "to make it easier for Americans to participate in telehealth, distance learning, and telework, and simply remain connected while practicing recommended 'social distancing."

Thank you for your consideration of this request. Please contact the undersigned by phone at (202) 416-6744 or (202) 669-3288, or by email at <a href="mailto:scoran@lermansenter.com">scoran@lermansenter.com</a>, if there are any questions concerning this matter.

Respectfully submitted,

/s/ Stephen E. Coran Stephen Coran

cc: Charles Mathias
Roger Noel
Jonathan Markman
Ira Keltz
Sean Spivey
Keith Harper

<sup>2</sup> *Id*.

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<sup>&</sup>lt;sup>1</sup> See, e.g., News Release, FCC Provides T-Mobile Temporary Access to Additional Spectrum to Help Keep Americans Connected During Coronavirus Pandemic (Mar. 15, 2020).

# Attachment 1

WISP Name	Name/Address/Email for Contact	State	Counties
Amplex Electric, Inc.	22690 Pemberville Road Luckey, OH 43443	ОН	Erie, Hancock, Lucas, Ottawa, Sandusky, Seneca, Wood
	Mark Radabaugh mark@amplex.net		
Broadband VI, LLC	2163 Hospital Street Christiansted, VI 00820	VI	St. Croix, St. John, St. Thomas
	Mike Meluskey mike@broadband.vi		
Bolt Internet	600 East Gurley Street Suite E Prescott, AZ 86301	AZ	Yavapai
	Robert Clark rclark@boltinternet.com		
Camp Communication Services	2160 116 <sup>th</sup> Avenue Allegan, MI 49010	MI	Allegan
	Blair Davis blair@wmwisp.net		
Community Internet Providers, LLC	203 N. 5 <sup>th</sup> Street Wills Point, TX 75169	TX	Collin, Franklin, Henderson, Hopkins, Hunt, Kaufman, Rains,
	Tom Woody tom@GetCIP.com		Rockwall, Smith, Van Zandt, Wood
Computer Office Solutions, Inc. dba Snappy Internet & Telecom	7266 SW 48 Street Miami, FL 33155	FL	Broward, Miami-Dade
	Faisal Imtiaz faisal@snappytelecom.net		
Ethoplex, LLC	N11W19150 Edison Drive Germantown, WI 53022 Keefe John, CEO	WI	Dodge, Fond du Lac, Milwaukee, Washington, Waukesha
	kjohn@ethoplex.com		

WISP Name	Name/Address/Email for Contact	State	Counties
Grice Enterprises LLC Grice Computers & Wireless Internet	13 N. Central Avenue Idabel, OK 74745	OK	McCurtain
	Christopher G. Grice chris@griceenterprises.com		
Internet Communications, Inc.	739 Commerce Drive Franklin, IN 4 6131	IN	Bartholomew, Johnson, Marion, Morgan, Rush, Shelby
	Tyson Burris ty@franklinisp.net		·
Internet Services LLC	2 Lakeview Circle Sandia Park, NM 87047 Steven Grabiel	NM	Bernalillo, Sandoval, Santa Fe, Socorro, Torrance
	sgrabiel@higherspeed.net		
LR Communications	102 W. Second Street Leaf River, IL 61047	IL	Lee, Ogle
	Joseph Novak jnovak@lrcomm.com		
MetaLINK Technologies, Inc.	417 Wayne Avenue Suite 101	IN	Allen, DeKalb, LaGrange, Noble, Steuben
	Defiance, OH 43512 Fernando Torres	MI	Branch Hillsdale, Lenawee, Monroe
	ftorres@team-meta.net	ОН	Allen, Defiance, Fulton, Hancock, Hardin, Henry, Lucas, Mercer, Paulding, Putnam, Van Wert, Williams, Wood
Mimbres Communications, LLC	P.O. Box 1408 Silver City, NM 88061	NM	Grant
	Kurt Albershardt mimcom@sw-ei.com		
Newmax LLC	7400 Mineral Drive Suite 300	ID	Benewah, Bonner, Boundary, Kootenai
	Coeur d'Alene, ID 83815	WA	Spokane
	Mike Kennedy, President noc@intermaxteam.com		

WISP Name	Name/Address/Email for Contact	State	Counties
New Wave Net Corp	P.O. Box 485 Bloomington, IL 61702 Garth Nicholas gnicholas@nwnc.net	IL	Bureau, Henry, Knox, Livingston, Marshall, McLean, Peoria, Putnam, Stark, Tazwell, Woodford
Nextlink Internet	95 Parker Oaks Lane Hudson Oaks, TX 76087	KS	Cowley, Sedgwick, Sumner
	Ross Tanner netops@team.nxlink.com	NE	Antelope, Boone, Burt, Cedar, Cuming, Dixon, Dodge, Holt, Knox, Madison, Merrick, Nance, Pierce, Platte, Polk, Stanton, Thurston, Washington, Wayne
		OK	Alfalfa, Blaine, Bryan, Canadian, Choctaw, Dewey, Ellis, Garfield, Grant, Greer, Jackson, Jefferson, Kay, Kingfisher, Kiowa, Logan, Love, Major, Marshall, Noble, Osage, Pawnee, Payne, Tillman, Washita, Woods, Woodward

WISP Name	Name/Address/Email for Contact	State	Counties
		TX	Archer, Austin, Bell, Bosque, Brown, Burleson, Callahan, Clay, Coke, Coleman, Collin, Colorado, Comanche, Concho, Cooke, Coryell, Dallas, Delta, Denton, Eastland, Ellis, Erath, Falls, Fannin, Franklin, Freestone, Grayson, Grimes, Hamilton, Henderson, Hill, Hood, Hopkins, Hunt, Irion, Jack, Johnson, Kaufman, Lamar Lampasas, Lee, Leon, Limestone, Mason, McCulloch, McLennan, Menard, Milam, Mills, Montague, Navarro, Palo Pinto, Parker, Rains, Red River, Robertson, Runnels, San Saba, Shackelford, Somervell, Stephens, Tarrant, Taylor, Throckmorton, Tom Green, Van Zandt, Waller, Washington, Wichita, Williamson, Wise, Wood, Young
Radio Link Internet	8162 SW 81 <sup>st</sup> Street Ellendale, MN 56026  Daniel Petsinger Daniel.petsinger@radiolinkinternet. com	MN	Blue Earth, Dodge, Freeborn, LeSueur, Mower, Rice, Steele, Waseca
Ridge Wireless, Inc.	P.O. Box 2432 Cupertino, CA 95015 Mike Lyon mike@ridgewireless.net	CA	Santa Clara, Santa Cruz, Monterey, San Mateo, San Benito

WISP Name	Name/Address/Email for Contact	State	Counties
River Valley Internet	1604 East Third Street Williamsport, PA 17701	PA	Lycoming
	Matt Hoppes noc@rivervalleyinternet.net		
Rocket Connect LLC	341 Independence Avenue Clinton, MO 64735	МО	Benton, Cass, Henry, Pettis, St. Clair
	Wayne Simon wsimon@gocisc.com		
Safelink Internet	906 S. Oneida #8 Rupert, ID 83350  Kevin Neal kevin@safelinkinternet.com	ID	Ada, Bingham, Blackfoot, Blaine, Bonneville, Camas, Canyon, Cassia, Emmett, Fremont, Gooding, Jerome, Lincoln, Madison, Minidoka, Owyhee, Payette, Power, Twin Falls, Washington
		MT	Gallatin
		OR	Malheur
Softcom Internet Communications, Inc.	545 Industrial Drive Suite 195 Galt, CA 95632 Brian Meredith brian@corp.softcom.net	CA	Sacramento, San Joaquin
Southern Broadband LLC	2840 Highway 87 Crystal Beach, TX 77650 Cody Landrum cody.landrum@southernbroadband. com	TX	Chambers, Galveston, Jefferson
TCC Networks/TCCSkywire	125 Fireworks Circle	ME	Oxford
	Bridgewater, MA 02324  Donald Dawson	MA	Hampshire, Norfolk, Plymouth, Suffolk
	ddawson@tccnetworks.com	NH	Coos
		VT	Essex

WISP Name	Name/Address/Email for Contact	State	Counties
Texoma Communications, LLC	P.O. Box 1296 Sherman, TX 75091-1296 JJ McGrath jj@tekwav.com	TX	Grayson
Triad Wireless	4226 S. 37 <sup>th</sup> Street Phoenix, AZ 85040  Rory Conaway rory@triadwireless.net	AZ	Maricopa, Pima
Virginia Everywhere, LLC	908 Trailview Boulevard SE Suite 170 Leesburg, VA 20175  Don McElroy dmcelroy@allpointsbroadband.com	KY	Anderson, Bath, Bourbon, Bracken, Bullitt, Clark, Franklin, Grant, Harrison, Henry, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Pendleton, Robertson, Scott, Shelby, Spencer, Trimble, Washington, Woodford
		MD	Frederick, Montgomery, Washington
		VA	Bedford, Bland, Botetourt, Carroll, Clarke, Craig, Fairfax, Fauquier, Floyd, Franklin, Frederick, Giles, Loudoun, Montgomery, Prince William, Pulaski, Rappahannock, Roanoke, Shenandoah, Warren, Wythe
		WV	Berkeley, Jefferson, Mercer, Monroe
Washington Broadband, Inc.	3201 W. Nob Hill Boulevard Yakima, WA 98902-4960	WA	Yakima
	Forbes Mercy forbes.mercy@wabroadband.com		

WISP Name	Name/Address/Email for Contact	State	Counties
Wavelinc Communications	P.O. Box 126 Bucyrus, OH 44820 Kurt Fankhauser kurt@wavelinc.com	ОН	Crawford, Huron, Marion, Morrow, Richland, Seneca, Wyandot
Wireless Internet Services, Inc.	113 N. Church St., Suite 518 Visalia, CA 93291  Tony Pierro tonyp@wirelesstcp.net	CA	Tulare County
Windfield Enterprise LLC dba Kellin Communications	6203 Valley Hi Road Larkspur, CO 80118 Judy Kelly kelly@kellin.net	СО	Douglas, El Paso, Elbert, Garfield, Mesa, Pitkin, Pueblo
Ziplink Systems LLC	P.O. Box 1489 Queen Creek, AZ 85142  David Busch david@ziplink.systems	AZ	Pinal
Zirkel Wireless	1856 Kamar Plaza Steamboat Springs, CO 80487 Sean Heskett sean@zirkel.us	СО	Moffat, Routt

### **Attachment 2**

## **Section 90.371(b)**

(b) DSRCS Roadside Units (RSUs) operating in the band 5850-5925 MHz shall not receive protection from Government Radiolocation services in operation prior to the establishment of the DSRCS station. Operation of DSRCS RSU stations within 75 kilometers of the locations listed in the table below must be coordinated through the National Telecommunications and Information Administration.

Location	Latitude	Longitude
Ft. Lewis, WA	470525N	1223510W
Yakima Firing Center, WA	464018N	1202135W
Ft. Carson, CO	383810N	1044750W
Ft. Riley, KS	385813N	0965139W
Ft. Shafter, HI	211800N	1574900W
Hunter Army Airfield, GA	320100N	0810800W
Ft. Gillem, GA	333600N	0841900W
Ft. Benning, GA	322130N	0845815W
Ft. Stewart, GA	315145N	0813655W
Ft. Rucker, AL	311947N	0854255W
Yuma Proving Grounds, AZ	330114N	1141855W
Ft. Hood, TX	310830N	0974550W
Ft. Knox, KY	375350N	0855655W
Ft. Bragg, NC	350805N	0790035W
Ft. Campbell, KY	363950N	0872820W
Ft. Polk, LA	310343N	0931226W
Ft. Leonard Wood, MO	374430N	0920737W
Ft. Irwin, CA	351536N	1164102W
Ft. Sill, OK	344024N	0982352W
Ft. Bliss, TX	314850N	1062533W
Ft. Leavenworth, KS	392115N	0945500W
Ft. Drum, NY	440115N	0754844W
Ft. Gordon, GA	332510N	0820910W
Ft. McCoy, WI	440636N	0904127W
Ft. Dix, NJ	400025N	0743713W
Parks Reserve Forces Training Area, CA	374254N	1214218W
Ft. Hunter Ligget, CA	355756N	1211404W
Pacific Missile Test Center, CA	340914N	1190524W
Naval Air Development Center, PA	401200N	0750500W
Mid-Atlantic Area Frequency Coordinator, MD	381710N	0762500W
Naval Research Laboratory, MD	383927N	0763143W
Naval Ocean Systems Center, CA	324500N	1171000W
Naval Research Laboratory, DC	385500N	0770000W
Naval Surface Weapons Center, MD	390205N	0765900W

Location	Latitude	Longitude
Naval Electronic Systems Engineering Activity, MD	381000N	0762300W
Midway Research Center, VA	382640N	0772650W
Aberdeen Proving Ground, MD	392825N	0760655W
Ft. Huachuca, AZ	313500N	1102000W
Ft. Monmouth, NJ	401900N	0740215W
Picatinny Arsenal, NJ	405600N	0743400W
Redstone Arsenal, AL	343630N	0863610W
White Sands Missile Range, NM	322246N	1062813W
Army Research Laboratory, MD	390000N	0765800W
Space and Missile Systems Center, CA	335500N	1182200W
Edwards AFB, CA	345400N	1175200W
Patrick AFB, FL	281331N	0803607W
Eglin AFB, FL	302900N	0863200W
Holloman AFB, NM	322510N	1060601W
Kirtland AFB, NM	350230N	1063624W
Griffiss AFB, NY	431315N	0752431W
Wright-Patterson AFB, OH	394656N	0840539W
Hanscom AFB, MA	422816N	0711725W
Nellis AFB, NV	361410N	1150245W
Vandenberg AFB, CA	344348N	1203436W
U.S. Air Force Academy, CO	385800N	1044900W
Brooks AFB, TX	292000N	0982600W
Arnold AFB, TN	352250N	0860202W
Tyndall AFB, FL	300412N	0853436W
Charles E. Kelly Support Facility - Oakdale, PA	402357N	0800925W