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UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and
Information Administration
Washington D.C. 20230

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FEB 16 2010

Federal Communications Commission
Office of the Secretary

Mr. Julius Knapp
Chief, Office of Engineering and Technology
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Dear Mr. Knapp:

The Federal Communications Commission (FCC) is currently considering a request for waiver filed by ReconRobotics, Inc. that would permit the Recon Scout, a remote-controlled maneuverable device, to transmit surveillance data in the 430-448 MHz portion of the 420-450 MHz band. The 420-450 MHz band is allocated to the Federal Radiolocation service on a primary basis.¹ While the National Telecommunications and Information Administration (NTIA) recognizes that law enforcement and firefighting agencies could benefit by using this remotely controlled surveillance device in considering the waiver request, the FCC should evaluate the overall future use of the 420-450 MHz band and the impact of allowing a diverse set of new uses.

If mass-marketed low power consumer devices are permitted to operate in the 420-450 MHz band, this could adversely impact the performance of critical radar systems.² The unique propagation characteristics (e.g., low propagation loss) of the 420-450 MHz band are necessary to support the detection requirements of ground-based, airborne, and shipborne long-range surveillance radar systems. There are no other frequency bands available to support the functions performed by these radar systems.

Also, under certain scenarios, devices such as the Recon Scout operating in this band could be impacted by the high power military radar systems and the Enhanced Position Location Reporting System used in support of ground-based and airborne homeland defense missions. In addition, several high power radars, e.g. located in Massachusetts and Puerto Rico, operate for ionospheric research purposes in this band.

Manufacturers of devices similar to the Recon Scout have submitted applications through the Federal Government proposing to operate in non-Federal frequency bands or in bands where

1. ReconRobotics Inc., Request for Waiver of Part 90 of the Commission's Rules (filed Jan. 11, 2008). The waiver is for C.F.R. §§ 90.101 (limiting Part 90 use of the 420-450 MHz to radiolocation), 90.207 (modulation), and 90.209 (bandwidth).

2. This concern is based on experience in other bands where there has been a proliferation of low power devices. For example, the operation of many low-powered devices has significantly increased the background noise levels in the 902-928 MHz and 2400-2483.5 MHz, making it difficult for other radio services to use the band.

they do not comply with the table of frequency allocations. NTIA and the FCC should ensure that these other applications are also accommodated.

NTIA recommends that the FCC adopt the following conditions if it grants a waiver permitting the operation of the Recon Scout in the 420-450 MHz band:

- sale or lease of the Recon Scout is limited to state and local police and firefighters eligible for licensing under Section 90.20(a)(1) of the Commission's Rules,³ and security personnel in critical infrastructure industries;⁴
- the Recon Scout will operate on a non-interference, unprotected basis to Federal users;
- training operations for the Recon Scout will not be permitted within 30 kilometers of the following Federal radar sites:

Federal Radar Site	Latitude (Degrees-Minutes-Seconds)	Longitude (Degrees-Minutes-Seconds)
Beale Air Force Base	39-08-10 N	121-21-04 W
Cape Cod Air Force Station	41-45-07 N	070-32-17 W
Clear Air Force Station	64-55-16 N	143-05-02 W
Cavalier Air Force Station	48-43-12 N	097-54-00 W
Eglin Air Force Base	30-43-12 N	086-12-36 W

- the operation of the Recon Scout may be impacted in the vicinity of the following high power radar and ionospheric research sites:

Radio Astronomy Radar Site	Latitude (Degrees-Minutes-Seconds)	Longitude (Degrees-Minutes-Seconds)
Arecibo, Puerto Rico	18-20-37 N	66-45-11 W
Westford, MA	42-37-24 N	71-29-18 W
Poker Flats, AK	65-07 47 N	147-28-14 W

- Recon Scout transmitters shall be labeled as provided in Part 2 of 47 C.F.R. and shall bear the following statement in a conspicuous location of the device:

3. 47 C.F.R. § 90.20(a)(1). Other state and local government entities would not be eligible.

4. Critical Infrastructure Industry is defined in Section 90.7 of the FCC Rules, 47 C.F.R. § 90.7.

“This device may not interfere with Federal stations operating in the 420-450 MHz band and must accept any interference received.”

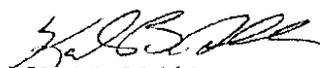
- the following statement shall be placed in the instruction manual for the Recon Scout device:

“Although this transmitter has been approved by the Federal Communications Commission, there is no guarantee that it will not receive interference.”

- The licensee will be required to maintain a log of all Recon Scout use. Use is defined as any time the equipment is turned on for operations, training, or equipment check-out. The log will include: date of operation, start/stop times, location of operation, frequency of operation, reason for use, and point of contact. Upon request the FCC Office of Engineering and Technology shall provide this information to the Federal Government through the NTIA; and
- the sale of the Recon Scout is limited to 2000 devices during the first year and 8000 devices during the second year, for a total of no more than 10000 devices at the end of two years. Future sales of the Recon Scout will be reconsidered at the end of this period.

NTIA believes that the conditions stated above are necessary to preclude the development of mass-marketed consumer devices that, over time, could impact the use of 420-450 MHz band by Federal systems. Given the importance of the systems that operate in the 420-450 MHz to national defense, the impact of devices requesting to use this band need to be fully understood and resolved. If you have any questions about our recommendations, please feel free to contact Edward Davison at (202) 482-5526.

Sincerely,



Karl B. Nebbia
Associate Administrator
Office of Spectrum Management