



August 28, 2002

Federal Communications Commission
Experimental Radio Services
Post Office Box 358320
Pittsburgh, PA 15251-5320

Re: Request for Special Temporary Authority (STA)
File No. 0414-EX-ST-2002
FCC FRN: 0007597966

Dear Sirs:

Pursuant to Section 5.56 of the Commission's rules, iRobot Corporation hereby requests that Special Temporary Authority be granted for the purposes discussed below. A similar request was dismissed without prejudice on January 15, 2003 (Reference Number 2411).

In general, iRobot Corporation is seeking to test radio equipment associated with a particular application of its PackBot™ remote-controlled robot. The robot contains an on-board personal computer that has a Cisco Aironet 350 WLAN 802.11b card in its PCMCIA slot. Utilizing a laptop computer with the same card, the operator can send commands to the robot and receive images back via radio. The Cisco card operates at a frequency of 2.4GHz and both units have an 8" antenna. The UK Ministry of Defence (UK MOD) would like to use this system for surveillance and remote-presence operations. They would like it to operate a different frequency than is currently in our robots, yet still maintain the same operating distance of the robot from the control station. Using a radio module developed by Prism Advance Communications at the required frequency, iRobot would like to test the system in the US prior to sending it to the UK. The testing would comprise of inserting the radio module into the robot and laptop, changing over to the properly tuned antenna and testing the robot/laptop link. This would be accomplished by driving the robot indoors at our facility in Milford, New Hampshire, and operating in an open field just outside our facility. The robot and laptop would be from 2 feet to 2000 feet apart at all times.

Sincerely,

tel (781) 345-0200
fax (781) 345-0201

63 South Avenue
Burlington, MA 01803

Letter to FCC
Re: STA Request
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Glen Weinstein
Vice President

Enclosures

Detailed Information

Requester's Name:	iRobot Corporation 63 South Avenue Burlington, MA 01803
Need for Special Action:	iRobot would like to conduct a series of limited tests for equipment it is developing on behalf of the United Kingdom's Ministry of Defence (UK MOD). The period of testing, as detailed below, is significantly less than six months.
Type of Operation:	Operating remote-controlled vehicle via radio
Purpose of Operation:	To test operating ranges for UK approved frequency
Time & Date:	February 5-12, 2003, 9:00 AM EST to 5:00 PM EST
Class of Station:	<i>not yet assigned</i>
Nature of Service:	WLAN
Location of Operation:	Milford, NH (Milford, NH: latitude 42.8415, longitude - 71.7220)
Equipment to be Used:	iRobot PackBot and Operators Control Unit with Prism Advanced Communications PCMCIA Radio Interface Module
Frequency(ies) to be Used:	1.215 to 1.315 GHz
Effective Radiated Power:	250 milliwatts
Emission Type:	802.11b
Overall Height of Antenna:	< 6 meters
Basic Characteristics:	Section 2.201: G2D Section 2.202(a): occupied 100M, necessary 25M0