BOOTH, FRERET, IMLAY & TEPPER, P.C.

ATTORNEYS AT LAW

ROBERT M. BOOTH, JR. (1911-1981)
JULIAN P. FRERET (1918-1999)
CHRISTOPHER D. IMLAY
CARY S. TEPPER

BETHESDA OFFICE:
7900 WISCONSIN AVENUE, SUITE 304
BETHESDA, MD 20814-3628

TELEPHONE: (301) 718-1818
FACSIMILE: (301) 718-1820
TEPPERLAW@AOL.COM

SILVER SPRING OFFICE:
14356 CAPE MAY ROAD
SILVER SPRING, MD 20904-6011

TELEPHONE: (301) 384-5525
FACSIMILE: (301) 384-6384
BFITPC@AOL.COM

October 19, 2010

Via E-mail and U.S. Mail
rashmi.doshi@fcc.gov

Dr. Rashmi Doshi, Chief
Laboratory Division
Office of Engineering and Technology
Federal Communications Commission
7435 Oakland Mills Rd
Columbia MD 21046-1609

Re: Errors in TCB Grant of Certification for ReconRobotics Recon Scout; FCC Identifier UYXRSK2010-01; Licensed Non-Broadcast Station Transmitter; American TCB, Inc. date of grant 04/22/2010.

Dear Dr. Doshi:

ARRL, the national association for Amateur Radio is in receipt of the letter authored by Mitchell Lazarus, Esquire on behalf of his client, ReconRobotics, Inc., dated October 8, 2010. In that letter, ReconRobotics opposes ARRL's request that the Laboratory Division review and set aside the April 22, 2010 grant of equipment authorization issued to ReconRobotics, Inc. by American TCB, Inc. of McLean, Virginia for a licensed, non-broadcast video transmitter marketed as the "Recon Scout."

ReconRobotics is substantially in error in virtually all respects in its letter, and ARRL respectfully reiterates its urgent request that the TCB grant of equipment authorization be revoked or withdrawn, pursuant to Section 2.939 of the Commission's Rules. ARRL responds to ReconRobotics' arguments as follows:

ReconRobotics first claims that its product, the Recon Scout is a "lawful device" with a "proven capability to save first responders' lives." In fact, however, long before the TCB grant of equipment authorization for this device, ReconRobotics was illegally selling and marketing the device. Its practices have been and, on information and belief, are currently under investigation by the Commission's Enforcement Bureau. It is unclear what the source of the allegation is that the device has a "proven capability to save first responder's lives," but that unsupported allegation is of no consequence; the device was improvidently granted equipment authorization by a TCB and the grant should be revoked or withdrawn for the reasons stated in ARRL's October 4, 2010 letter.

ReconRobotics asserts that ARRL's request that the TCB grant be set aside is "untimely." ReconRobotics incorrectly assumes in making this argument that ARRL has submitted a Petition for Reconsideration pursuant to Section 2.923 and Section 1.106 of the Commission's rules, which would have to have been filed within 30 days of the public notice of the grant of equipment authorization. ARRL filed no such pleading. Its suggestion instead is that your office revoke or withdraw the grant of equipment authorization pursuant to Section 2.939 of the Commission's Rules. That rule section permits the Commission to revoke or withdraw any grant of equipment authorization, among other reasons: (a) for false statements or representations made either in the application or in materials submitted in connection with the application [47 C.F.R. § 2.939(a) (1)]; (b) if upon subsequent inspection or operation it is determined that the equipment does not conform to the pertinent technical requirements or to the representations made in the original application [47 C.F.R. § 2.939(a) (2)]; (c) if changes have been made to the equipment other than as expressly authorized by the Commission [47 C.F.R. § 2.939(a) (3)]; or (d) because of conditions coming to the attention of the Commission which would warrant refusal to grant an original application [47 C.F.R. § 2.939(a) (4)]. Each of these circumstances exists with respect to the ReconRobotics TCB grant of equipment authorization. The Commission routinely reviews TCB grants where, as here, the TCB has erred substantially (and quite obviously) in granting the ReconRobotics application in the first place. It is of course not unusual for the Commission to set aside a TCB grant of equipment authorization made in error.

Thus, ARRL has filed neither a Petition for Reconsideration pursuant to Section 1.106, nor an Application for Review pursuant to Section 1.115 of the Commission's Rules. It has simply notified your office of information that both justifies and necessitates the Laboratory staff's revocation or withdrawal of a TCB grant of equipment authorization pursuant to Section 2.939 of the Commission's Rules. It is suggested that *prima facie* justification for such action has been provided by ARRL.

Furthermore, the Commission's Wireless Telecommunications Bureau has, awaiting its evaluation, some 85 applications for licenses for this device, *all* of which specify an erroneous emission designator, and a frequency range that is incorrect as well. The applications were filed specifically to permit use of a device that should not have been granted equipment authorization. The applicants' specification of the emission designator and of other technical characteristics of the device is specifically derived from the erroneous TCB equipment authorization grant. Each application thus relies on that erroneous grant and parrots the information contained in it. Some response from your office is obviously critical in allowing the WTB to address the issues before that Bureau now. For ReconRobotics to suggest that the Laboratory should leave the TCB grant alone is to attempt to foist off on WTB the obligation to evaluate the same issues raised by ARRL in its October 4, 2010 letter to you. Those issues are properly within the expertise and jurisdiction of the Commission's Laboratory.

ReconRobotics stridently characterizes ARRL's October 4, 2010 letter to you as an "ambush." ARRL would suggest that ReconRobotics has no right to continue to enjoy

a grant of equipment authorization based on false representations in its application for certification; it has no right to market a product that does not conform to the terms of the waiver that it has been tentatively granted by the deputy chiefs of the Wireless and Public Safety and Homeland Security Bureaus; and it has no right to continue to enjoy a grant of equipment authorization that doubtless would not have been granted had the Commission staff reviewed the application in the first place, premised as the grant was on errors that the TCB should have, but did not perceive when it was evaluated. This is precisely the kind of situation that Section 2.939 was intended to address.

Not surprisingly, on the technical merits, ReconRobotics continues to assert (as of course it must in order to try to salvage the flawed TCB grant) that the device has a 100 kHz necessary bandwidth, despite the fact that the emission is an analog, vestigial sideband, AM video emission. Nevertheless, it represented to the WTB and PSHSB that the Recon Scout uses one of three prioritized, 6 MHz channels over 430-448 MHz for this video, NTSC transmitter. If the emission is only 100 kHz, why then would the device require a 6 MHz channel bandwidth?

ReconRobotics defends the use by its test laboratory of an inapplicable bandwidth measurement technique intended for use in testing FM or PM communications equipment by suggesting that the TIA-603 test is the "only one approved by the Commission for this purpose." That is hardly a defense where the TIA standard was intended to be used for testing a completely different type of emission. The standard simply does not apply to an AM NTSC video emission. Furthermore, the alleged 100 kHz bandwidth is at variance with the terms of the WTB/PSHSB waiver order, which specified the use of three, 6 MHz bandwidth channels for the device. If the device occupies merely 100 kHz, then the waiver should be revised to permit ReconRobotics to sell these devices, and for eligibles to license them, on one of three contiguous 100 kHz channels. This would be far less disruptive to ongoing licensed operations in the 430-448 MHz band than would the use of 18 megahertz of spectrum. Unfortunately, however, it does not occupy 100 kHz of spectrum. ARRL has not been able to find a single instance in which test data for an NTSC video transmitter indicated that the applicant used the standard for measurement of an FM voice transmitter to measure the occupied bandwidth of the video signal. If that standard is the "only one" permitted, then hundreds of applications for NTSC video transmitters are incorrect. ReconRobotics' test laboratory plainly erred, and ReconRobotics is not candid enough to admit it and resubmit a correct application.

However, ReconRobotics did essentially concede that its equipment authorization grant is faulty, because at footnote 14 of its October 8 letter, it suggests that if the Commission finds the reported bandwidth of the device to be erroneous, ReconRobotics "does not object" to "correcting it." It is not as simple, however, as an editorial change in the TCB grant. The Commission has no basis for such an editorial change. Rather, it would be necessary for ReconRobotics to prepare and file a new application for certification which would be evaluated by the Commission's Laboratory staff. ARRL has noted errors in the measurement of occupied bandwidth of this device in the test report, which should have been noticed when the application for certification was evaluated by American TCB, but were not. The entire application is flawed, and the entire application

will have to be revised and re-filed by ReconRobotics, and evaluated by the Commission or by a TCB, *de novo*.

ReconRobotics addresses ARRL's concern that the transmit power was incorrectly tested by ReconRobotics' test laboratory, and incorrectly evaluated by the TCB by saying that the power is less than the maximum specified in the waiver, and therefore is consistent with the waiver. It says that ARRL "takes the odd view that less power is *more* interfering (sic)". ReconRobotics misses ARRL's point entirely. ReconRobotics sought in its waiver request to utilize 1 watt peak, 0.25 watts average power, but did not indicate whether this was to be EIRP, ERP or transmitter output power. The waiver Order was not specific as to which should be used. The test laboratory measured only EIRP, and showed 0.323 watts peak and 0.097 watts average power. However, *for the purpose of compliance testing of the characteristics of a device,* maximum power should be used, because maximum potential degradation of those characteristics is revealed at the maximum specified power limit. The TCB, using lower power for the tests, could not know for example what the full amount of sideband energy is, and therefore what the occupied bandwidth is for this device. ARRL is not worried that less power than specified in the waiver will be used <u>when the device is deployed</u>, but it is concerned that the test results were flawed as the result of the power utilized during the compliance testing of the device.

ReconRobotics asserts that it did not claim compliance with Section 90.209 of the Commission's Rules, which it claims were waived in the Waiver Order. However, it cannot and does not explain why the test report cites a footnote to that rule Section, which is specific to radiolocation transmitters and is hence inapplicable to the Recon Scout device. The point is that the modulation applied to the device under test was insufficient to produce a typical bandwidth representative of that expected from an AM vestigial sideband video transmitter, and the test report inadequately described the test conditions. This should have, but did not, raise a question in the TCB's review of this device, and caused the application to be returned or amended, rather than granted.

Finally, as to the discrepancy between the specification of the frequency range in the TCB grant of certification and the channelization plan set forth in the waiver Order, ReconRobotics again misses the point. ReconRobotics claims that its test laboratory used a "Part 15 practice" from the Knowledge Database, but it is not clear at all why a Part 15 standard for frequency specification should apply to the testing of a Part 90 licensed device. ReconRobotics claims that use of an applicable testing mechanism for licensed transmitters "would not work for the Recon Scout." Surely enough, as ReconRobotics argues, the waiver allows the device to use frequencies different than those in the Part 90 rules. However, nothing in ReconRobotics' explanation reveals why the range specified in the equipment authorization grant is 433.0 MHz to 445.0 MHz, but the waiver specified three discrete channels prioritized for licensing purposes as follows: 430 – 436 MHz; 436 - 442 MHz, and 442 – 448 MHz. The main point is that the center frequencies for these channels specified in the waiver request, respectively, were 433 MHz, 439 MHz and 445 MHz. But the video carrier for an NTSC C3F emission is offset 1.25 MHz from the lower channel edge, which places the center frequencies at 434.75 MHz, 440.75

MHz, and 446.75 MHz. Therefore, if the frequencies shown in the test report for this device are accurate, the waiver grant does not match the actual occupied frequencies. ReconRobotics has no explanation for this, except to say that "a good faith disagreement should not invalidate the certification." That statement is difficult to understand. The frequency of the transmitter submitted for testing in this case does not match the frequency of the channels given in the waiver, so there is no way that testing could have correctly determined that the transmitters could meet the requirements of the waiver order. If the video signal was intentionally bandwidth-limited, the transmitted signal could conceivably fit within the 6 MHz channel bandwidth, but the waiver is not for a bandwidth-limited video signal with a carrier in the center of the channel. The waiver was issued for the 6 MHz channels as requested by ReconRobotics. Therefore, the grant of certification must be set aside.

Nor, contrary to ReconRobotics' assertion, is the above point "academic" because the Part 90 applications now pending show a single channel of 436-442 MHz. That modified specification of channel bandwidth may be consistent with the waiver, but it is not consistent with the test results submitted to the TCB and granted by the TCB because the center frequency specified in the TCB grant is at variance with the provisions of the waiver (and the pending applications).

Because there is actually very little that is accurate about the certification application filed by ReconRobotics, it is readily apparent that the TCB certification grant was improperly made and should pursuant to Section 2.939 of the Commission's rules be revoked or withdrawn by the Commission, pending retesting of the device and resubmission of a valid equipment authorization application for this device.

Thank you very much for your consideration of this request.

Kind regards,

Christopher D. Imlay

Christopher D. Imlay
General Counsel, ARRL

Copy: Mitchell Lazarus, Esquire
(Counsel for ReconRobotics, Inc.)