12 April 2002

NEBRASKA CENTER FOR EXCELLENCE IN ELECTRONICS
4740 Discovery Drive
Lincoln, NE 68521
402-472-5880

Timothy R. Johnson
Examining Engineer
American TCB, Inc.
6731 Whittier Ave.
McLean, VA 22101

Dear Mr. Johnson,
I have uploaded the additional information requested to the American TCB website; answers to each of your questions are below with references to the exhibit where applicable. Items 16, 17 and 18 label as "FYI" from your letter dated April 10, 2002, are not listed in this letter.

If there are any further questions please let me know.

Best regards,

Doug Kramer
NCEE

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1) Please provide a FRN Number for iSECUREtrac Corp. This is now required for all Grantees - (reference MD Docket No. 00-205). To obtain an FRN online, visit the FCC's Web site at www.fcc.gov and click the Commission Registration System (CORES) link. For further assistance, please either refer to the FAQ at this same link; contact the CORES helpdesk at CORES@fcc.gov; or call the CORES helpdesk toll-free number: 1-877-480-3201.

It was our understanding that since the FRN was required to upload files and there is no field on the ATCB form 731 for the FRN it was taken as already provided. The FRN for iSecuretrac Corp is 0006-3646-40.

2) The Grantee code "IST" does not match the Applicant listed on the 731 form (iSECUREtrac Corp.). A search of the FCC web site yielded a grantee code of "OAM" for iSECUREtrac, but a different address was listed than provided on the 731. Please explain and provide a corrected 731 form.

This was a misunderstanding on our part and has been corrected on the document "IST-ATCB_Form731(revised).pdf". The address change with the FCC is in process, a letter has been sent via e-mail to btaube@fcc.gov on updated letterhead.

3) The PTU appears to receive signals from both the cuff bracelet and a GPS receiver. However it is not clear as to the intended purpose of the base station needing to transmit. For example, part of the submittal states that the base station receives information and broadcasts it to the PTU, while other information states that the PTU is carried with the cuff, making it seem like the base station is not necessary. Please provide better detail as to its function and purpose.

This is addressed in a revised theory of operation document "Theory_of_Operation_020211021b.pdf" on page 5.

4) It is not clear what type of connections that the PTU and Base station contain from the external photographs. Please provide better external photographs addressing this issue.

This can be seen in the added external photos "Base Charge Connectors.pdf" and "iST2100NC Charge Connector.pdf". The second files shows the 6 contact points towards the bottom of the picture.

5) The internal photographs are sufficient to show how the unit(s) are built. However detailed, clear, close up photographs (preferably one per page and showing both sides of each board) must be provide for all transmitter /receiver sections and if possible for each board within the device(s). Please provide these photographs and label each one appropriately as to their function, etc (i.e. it is not clear which part of the base is the transmitter and which part is the receiver).

A new set of internal photographs has been uploaded.

6) Please provide a photograph of the antenna relating to the transmitter being certified.

A clearer image of this can be seen in the internal photo "Repeater PCB Top - Tranrmitter Antenna.pdf".

7) It is not clear if the schematics provided include the transmitter portion being certified. Please confirm if this portion of the product is included in the schematics and where.

This has been clarified in schematic file label "IST2100NC Repeater Sch - FCC Marked up.pdf".

8) The confidentiality letter may only request which specific exhibits are requested to be held confidential (i.e. schematics, operational description, etc.). Only exhibits containing trade secrets, proprietary information, or sufficient technical information may be considered confidential. Additionally, the internal photographs may not be held confidential, but you may use a black marker to "black out" the top of any readable components if you wish. Please provide a new confidentiality letter as well as new photograph exhibits if you desire.

A new letter of confidentiality has been drafted ("FCC Confidential 2.PDF"). Due to the nature of this product, it is our hope that the FCC will hold the internal photos and test report as confidential. If that is not possible some images have had the component labels "blacked out". Still we feel someone may determine a way to defeat the tamper protection devices if given access to this information.

9) Please provide a block diagram for the RF circuitry that includes the frequencies as specified by CFR 2.1033(a)(5).

Please see the block diagram labeled "318 MHZ block.pdf".

10) The FCC ID labels provided in the application must be legible. Please provide a better exhibit for the PTU label as the information contained on this label is not readable. Additionally, please show where the FCC statements specified by 15.19 and where is the FCC ID as specified by 2.1033(7) & 2.925 are located. The appropriate statements and FCC ID should be located on the main control unit/base (which contains the transmitter portion of the product requiring certification). It would also be recommended that the statements (not the FCC ID) should be contained on the PTU since it is a separable unit.

Thank you for your recommendation, the updated images can be seen in the external photo file "iST2100NC Charge Connector.pdf" and in the label location file "Hardware Lables 2.PDF".

11) The data presented in sections 4.3 & 4.4 of the report do not show any correction factors. Please confirm if the Levels provided in these tables are corrected for the measurement system, such as antenna factors, cable loss, amplifiers, etc.

The levels in the tables are corrected for the measurement system, this is also noted in the amended test report "Test_Report(R040102-01A).pdf".

12) Does the repeater do any decoding, or does it strictly repeat any received information at 318 MHz. For instance, what happens if the user has a garage door opener that happens to work at 318 MHz as well?

This is addressed in a revised theory of operation document "Theory_of_Operation_020211021b.pdf" on page 5.

13) The test report does not contain any information regarding RBW and VBW settings of the test equipment for conducted and radiated measurements or justification for the highest frequency measured to. Please explain what settings were used for the following tests:

a) Conducted emissions from 450 kHz to 30 MHz
b) Radiated emissions from 30 MHz to 1000 MHz
c) Radiated emissions above 1000 MHz
d) What was the highest frequency tested to

The test report has been amended ("Test_Report(R040102-01A).pdf") to include this information. The highest frequency tested to was 4001MHz.

14) The measurements above 1 GHz must be shown for both peak and average conditions. The peak measurements must meet with the requirements specified in 15.35. Also, there is concern with the 2.862 GHz data and methods of measurement. Please call me to discuss.

Thank you for the clarification; the results in the amended test report have been changed to reflect this as discussed via telephone.

15) The test report states that the unit was tested to 15.231(e). To meet the requirements of this section, the unit must be designed to automatically limit operation such that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmissions, but in no case less than 10 seconds. This limitation must be integrated into the device and can not depend on the cuff transmission. Please explain how the device accomplishes this.

This is addressed in a revised theory of operation document "Theory_of_Operation_020211021b.pdf" on page 6.