Action Item #5:

> *"Submit the page of the User's Manual with the RF exposure warning and required user separation distance from the antenna of 20 cm."*

Rather than change the user manual, the device is shown to meet the requirements of 47CFR2.1093, at maximum duty cycle.

The duty cycle is calculated over a 100 mSec averaging window as specified in the rules. The longest message contains a total of 213 pulses each 20 uSec in duration, for a total transmitter on time of 4.26 mSec which represents a worst-case duty cycle of 4.26%.

This device is used in fixed locations and is not carried or worn by the end user.

The time-averaged RF transmit power is then,

$$250mW \times \frac{72\,packets}{6\,\min} \times \frac{4.26ms}{packet} \times \frac{1\,\min}{60 \times 10^3\,ms} = 0.213mW$$

Worst case, if all of the transmitted power were absorbed in a 1-gram sample of tissue, the power density is 0.213 mW/gram and is well below the 1.6 mW/gram limit found in 47CFR2.1093.

The maximum duty cycle of the device is

$$\frac{72\,packets}{6\,\min} \times \frac{4.26ms}{packet} \times \frac{1\,\min}{60 \times 10^3\,ms} = 0.000852 = 0.0852\%$$