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3965T03

"Exhibits"

October 24, 2003

Carl Huie
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

RE: ZAI Request for Special Temporary Authorization

Dear Mr. Huie,

In response to our conversation on October 22, 2003, I am pleased to provide the following information on behalf of ZAI in their request for an STA for operation at:

35°54'27" N, 85°25'20" W with a radius of 10 km.

The following issues were discussed in our telephone call and I am pleased to provide this information on their behalf. Please review and let me know if you have any questions.

1. General: This system is being operated under contract with DoE and NASA for the purpose of environmental surveys.
2. Altitude: 1000' AGL
3. ERP Calculation

The output power of the final stage of the signal source is 500 mW.
The antenna has a gain of -6dB at 100 MHz.

$$\text{ERP} = 0.5\text{W} \times \frac{1}{4} = 125\text{mW}$$

4. The device is pulse-modulated with a 2 us pulse. Thus, the necessary bandwidth:

$$B_n = 1/2\text{us} = 500 \text{ kHz}$$

5. The following frequencies are requested under this STA. None of the frequencies currently in-used within 15 km of the proposed area.

88.7 MHz, 92.3 MHz, 94.7 MHz, 97.9 MHz, 100.7 MHz, 107.3 MHz

6. A printout of the search from the FCC web site is attached to this letter.

Please consider this additional information as part of the filing for the STA. Contact the undersigned if you have any further questions.

Sincerely,

Michael Violettee

