



MARINE SCIENCE PROGRAM

DEPARTMENT OF EARTH AND OCEAN SCIENCES

Federal Communications Commission

Ref: Application for License for Experimental Radio Service
Confirmation Number: EL319929
File Number: 0279-EX-PL-2009

July 29, 2009

Dear Sir/Madam

We are applying for an experimental radio service license for two fixed radar stations in the outer banks of North Carolina. These radar stations will be temporary installations planned to be operated (pending approval by FCC) for a period of 1 to 2 months during March- April, 2010.

The Remote Ocean Sensing Systems WERA is a radar system designed to operate in a extremely low noise generation mode so that no "normal" radio band user is by the system. The main features of the system are:

- FMCW operation mode without any pulsing or gating sequences resulting in no out of band radiation.
- Very slow sweep mode (0.3 sec) that no normal FM receiver can demodulate.
- Very low transmitted RF power (2 Watts), directed towards the sea.
- If for any reason our system interferes with any other radio band user, the system will be manned but it is also remote controlled and can be reconfigured or even turned off immediately in-situ or remotely.

Our application seeks to investigate ocean currents and waves in the nearshore (<20km from shore) and as such will require ideally a bandwidth of 1MHz. The exact center frequency of operation can be anywhere in the region 40 to 49MHz and we would like to leave this to the discretion of FCC. Naturally, the quiter the frequency band available the better the operation of the system will be with the higher frequencies providing better resolution.

Please note that the University of South Carolina, is a state owned institution of higher education and as such fee exempt.

Thanks in advance for considering this application and do not hesitate contacting me directly if you need any additional information.

Sincerely

George Voulgaris, PhD

