

If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:

- a. The complete program of research and experimentation proposed including description of equipment and theory of operation.*
- b. The specific objectives sought to be accomplished.*
- c. How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.*

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- a. SeaLandAire Technologies, Inc engages in the development of a variety of systems that use GPS receivers to determine position. SeaLandAire is currently developing a mobile autonomous marine platform that uses GPS for positioning as well as a fixed buoy system that also includes a GPS receiver. Several other internal research and development projects also utilize GPS receivers to acquire positioning information.

The proposed GPS repeater (GPS Source GPSRKL1-L1) would be mounted on an internal wall of our laboratory space (labeled "Tool Room" in the attached drawing). The repeater would allow our prototype systems to acquire a GPS fix indoors. For many of our projects, transporting the entire prototype outdoors for GPS testing is either inconvenient or impossible. This GPS repeater would significantly ease operations as the majority of GPS testing and laboratory check-out could occur indoors in our lab space.

- b. All of SeaLandAire's projects that include GPS receivers require significant lab testing to ensure proper functionality before field testing. To this end, a GPS repeater as proposed in this application allows us to verify that the GPS antenna and receive circuitry is functioning properly without transporting our development systems outside of our laboratory space.

Objectives:

- Verify RF connections from prototype GPS antennas to GPS receivers
 - Verify that GPS receivers can successfully acquire a fix
 - Verify that SLAT software can properly parse and process data from the GPS receivers
- c. SeaLandAire is breaking new ground in autonomous marine systems development as well as buoy development. Without reliable GPS, these systems cannot properly function. SeaLandAire will continue to push the state of the art in integrated autonomous vehicle control solutions and GPS-enabled buoy systems, the speed of which would be greatly enhanced by a GPS repeater.