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## COASTAL ENVIRONMENTAL SYSTEMS

# Will a ZENO<sup>®</sup> survive 10,000 years?

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Coastal Environmental Systems becomes part of a 10,000-year project.

**Seattle, WA:** Coastal recently supplied the Long Now Foundation with a remote-site weather station. The Long Now Foundation, which seeks to “foster creativity in the framework of the next 10,000 years,” has envisioned a project designed to work into the future -- “about as long as the history of human technology is to date.” The core project of the Foundation is the development of a clock built to run for 10,000-years. It is to be located in the desert mountain land of Ely, Nevada. “The idea of the Clock is to encourage long-term thinking...” says Stewart Brand, president of the Long Now Foundation.

In order to gain a better understanding of the potential Clock site (crucial to it’s operation and longevity), the Long Now Foundation has installed a weather station on the Snake mountain range in Nevada. The weather station uses a Coastal Environmental Systems ZENO<sup>®</sup>-3200 data acquisition system with Meteorburst radio communication.

“They had tried other solutions by other vendors to get the data out of that rough terrain – but none were satisfactory – then they found Coastal and learned about the ZENO<sup>®</sup> and Meteorburst,” stated Amir Varamini, Production Engineer with Coastal.

*Meteorburst is a way to send data by bouncing the radio signal off of ionized trails in the atmosphere (these trails are not “hard” by our standards – but hard enough to bounce radio signals off of). The trails are created by “micro-meteorites” - about the size of a grain of sand – that are constantly entering the atmosphere.*

Coastal’s ZENO<sup>®</sup> is built specifically for environmental monitoring, and is capable of monitoring many sensors, communicating with "smart" serial sensors, making decisions, performing actions and then reporting via some form of telemetry from literally anywhere in the world. Its 32-bit microcontroller allows extremely fast and powerful computing of multiple routines and uses advanced power management for very low power consumption. A true real-time executive is used to achieve multi-tasking, which samples and communicates simultaneously.

The ZENO<sup>®</sup> is enclosed in a housing designed to make it nearly impervious to noise or radio interference, and its every operation is confirmed using both a hardware and software "watchdog."

Coastal Environmental Systems ZENO<sup>®</sup>-3200 was developed to be the most advanced datalogger available. ... But will it withstand 10,000 years? Only time will tell...

For more information on the Long Now Foundations Clock project and weather station, please visit their website at: <http://epoch.longnow.org/weather/>

**For Immediate Release**

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