

## **Presentation 13: George M. Cole**

### **Bathymetric LiDAR Applications in Marine Archaeology**

Due to the long-elapsd time and as much as 100 meters of sea level rise since the paleo period, a large percentage of evidence of earlier civilizations along the Gulf Coast is now underwater and well seaward of the current shoreline. Unfortunately, very few areas in the Gulf have been mapped in sufficient resolution to detect such evidence for study. Further, traditional hydrographic surveying technology, using fathometers, cannot provide the needed resolution. This paper describes an alternate approach, bathymetric LiDAR, that, in some areas, can efficiently produce high-resolution views of underwater terrain for detecting candidate sites needing archaeological studies. Included are description of the technology, discussion of the capabilities and limitations of this approach as well as examples of data from recent projects in the Gulf using such technology for archaeological studies.