

SELF- DEPLOYED MOBILE STATION-KEEPING FOR LITTORAL AND ESTUARINE ENVIRONMENTS.

*Arnis Mangolds, C-2 Innovations, Inc (C-2i)*

C-2i has developed a family of bottom crawling autonomous, amphibious robots, referred to as the Sea Otter. The Sea otter systems are capable of self-deployment and completing pre-programmed search patterns exceeding 16 km to depths of 100-m. Alternatively they can remain on station for several months in high energy environments such as rivers and surf zone, through storm and tidal cycles. Its low ground pressure permits access to tailings ponds and marsh soils that do not support human loads. The close and predictable ground contact affords sensors greater sensitivity and higher precision that can be coupled with on-demand penetrometers, coring or soil sampling. The Sea otter system provides a new capability that will extend and enhance existing instrumentation packages and allow access to regions that have been too costly or difficult to address.