

# XTP Sensors Deployed on UpTempO Buoy



An experimental drifting buoy equipped with eXpendable Temperature and Pressure (XTP) sensors from Soundnine Inc (USA) was deployed for the UpTempO project. The UpTempO project, headed by Dr. Mike Steele of the University of Washington, Polar Science Center, uses inexpensive buoys to measure the Upper layer Temperature of the Polar Oceans. The buoy was deployed in [northern Hudson bay](#) on 14 June 2018 by Canadian research icebreaker CCGS Amundsen. It transmits real-time temperature and conductivity data to 25 metres deep, enabling scientists to measure the rate of surface warming as Arctic sea ice increasingly thins and retreats each summer.

Pacific Gyre Inc. (USA) integrated Soundnine's inductive modem and seven XTP sensors into a modified drifting buoy. The XTP sensors are accurate to 0.005°C; 10 to 20 times more accurate than temperature sensors on previous UpTempO buoys. The sensors are clamped to a jacketed wire rope tether. They communicate with the buoy through the wire rope using Soundnine's inductively coupled telemetry. The small size and streamlined shape of the XTP sensors should improve the survivability of the system through winter freeze-up (ice ridging) and allow this buoy to provide data throughout spring break up and the following summer.

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<https://www.hydro-international.com/content/news/xtp-sensors-deployed-on-uptempo-buoy>

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