

# News at Pro-Oceanus

## Pro-Oceanus Systems Inc.

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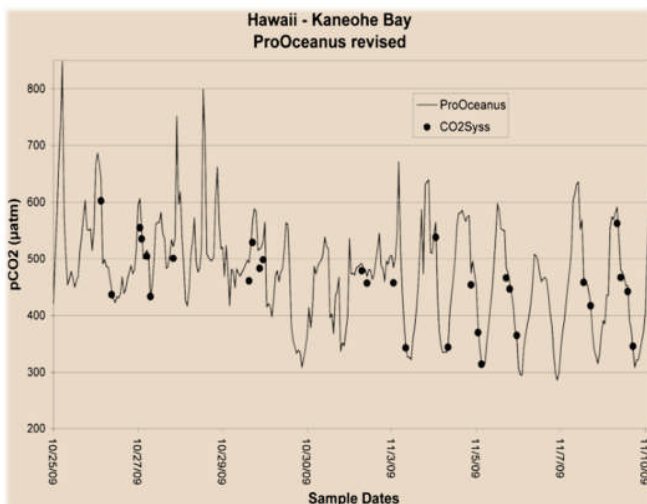
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### CO2-Pro™ first for in situ pCO2

The results are now public on-line. The Pro-Oceanus CO2-Pro™ finished first among *in situ* pCO2 instruments in the Alliance for Coastal Technologies (ACT) international inter-comparison study in Kaneohe Bay, Hawaii. See full details in the reports at: <http://www.act-us.info>

The test site was located next to a reef and saw daily changes in pCO2 of as much as 300 micro-atmospheres. Despite these challenging conditions, the error in the CO2-Pro™ data was very nearly the same as the estimated error for the ACT reference data.

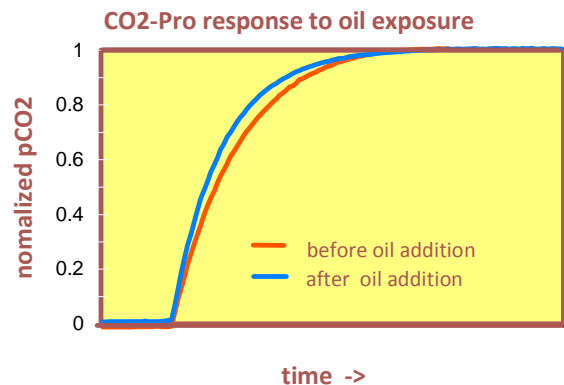
While we were very pleased to see the performance of our instrument in Kaneohe Bay, we at Pro-Oceanus also saw where we could make improvements. On release of the ACT results, our engineers immediately initiated new research projects that will make the Pro-Oceanus CO2-Pro™ even better.



Results from the Hawaii ACT trial showing the PSI pCO2 measurements (solid line) and ACT reference data (circles).

### Pro-Oceanus develops oil-proof design

Faced with the challenge of measurements under conditions like those encountered in the recent Gulf oil spill, engineers at Pro-Oceanus have redesigned our instruments to work in oil contaminated waters. Prior to these developments we have recommended that measurements in underway mode be suspended when approaching a harbor. Test results (below) with the new oil-proof design show that exposure to oil actually improves the time constant for CO2 measurement.



CO2-Pro measurements show that the response time of our instrument actually improves when oil is added.

### Pro-Oceanus introduces the new CH4-Pro

Pro-Oceanus is pleased to announce the new PSI in situ methane/alkane sensor designed for use even in oil-contaminated waters. The CH4-Pro™, a product of our intense R&D ethic and support from IRAP Canada, makes measurements of methane and other alkanes under conditions where other sensors have not been able to perform. At 40 cm long and 9 cm in diameter, the new CH4-Pro™ is available in Delrin or aluminum and can be configured to be internally recording and/or provide an RS-232 output.



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Efforts of PSI technical staff have now turned to producing the same sensor in a 5 cm diameter package for use on ROV's, gliders and drifters.



*New PSI CH4-Pro™, capable of operation in an oil contaminated environment, features an acme threaded mason jar closure, protected water-proof connector and patented pumped interface. Design shown in aluminum is proof to 1000 meters depth.*

### More new products from Pro-Oceanus

Pro-Oceanus engineers have been working with NRC Canada scientists to develop small in situ pCO<sub>2</sub> sensors for use in measuring pCO<sub>2</sub> in: groundwater, in bore holes for validating CO<sub>2</sub> sequestration and in sensitive biological applications where normal bio-fouling inhibitors cannot be used. These new pCO<sub>2</sub> sensors are now under-going beta testing and will be available later this year. At only 5 cm in diameter, they also will be ideal for use on ROV's and gliders.

In other developments Pro-Oceanus now offers an air sampling option for our CO<sub>2</sub>-Pro. Designed for use on buoys or in underway mode, the CO<sub>2</sub>-Pro with air sampling capability alternates measurement between pCO<sub>2</sub> in water and in air.

In a further development Pro-Oceanus engineers have developed new pCO<sub>2</sub> stat systems for controlling pCO<sub>2</sub> in tanks and incubators. These controllers are used to study the response of organisms to past present and future pCO<sub>2</sub> levels.

### PSI gets new website

Pro-Oceanus is completing launch of a new web site. New features will include "tech notes" and "new applications". Visit us at: [www.pro-oceanus.com](http://www.pro-oceanus.com)

If you have comments or suggestions about our new website, please email Mrs. Norma Young at: [young@pro-oceanus.com](mailto:young@pro-oceanus.com).

### Pro-Oceanus moving to new offices

Pro-Oceanus is moving to 80 Pleasant St. in Bridgewater. The 19<sup>th</sup> century building that we have christened OCEANUS HOUSE is the former county courthouse and offers Pro-Oceanus seven times more space than our old building.

When our plans are complete we will occupy the ground floor, and the remainder of the building will house other ocean science companies with technologies that are complementary to our own.



*Nineteenth century picture of Bridge-water courthouse*



*Oceanus House as it appears today*



*The view from a third floor window at Oceanus House*