

RESEARCH VESSEL TECHNICIANS SHARE INNOVATIONS

INMARTECH 2014



The INMARTECH 2014 conference for Research Vessel Technicians was hosted by Oregon State University in Corvallis, USA. More than 200 attendees from all over the world exchanged innovations, tips & tricks and experiences in the field of technology for sea and ocean research.

Chair of the organising committee David O'Gorman can look back on a very successful and well organised event.

O'Gorman: "As marine technicians we always do the same job, but we never do it together. That is the nature of the job. This event enables us to interact and to share knowledge. My highlights during this conference were: the large number of lessons-learned presentations, the interactive multibeam training sessions, the icebreaker session and the mini vendor show."

A wide variety of subjects were presented, including: sampling equipment, coring, ships, ROVs, AUVs, buoys, moorings, wires and winches. A few of these presentations are highlighted below.



Running a Research Cruise from Shore

Normally a research vessel and a group of scientists go to sea to explore the environment. The availability of a high-bandwidth shore connection generates really new possibilities. Dwight Coleman of the Inner Space Centre of the University of Rhode Island gave an exciting presentation about a 'NASA-like science survey'. The use of Telepresence Technology in the NOAA funded programme resulted in bringing others to a research cruise, especially for a short period, comparable with the doctor-on-call idea. Via a live video connection scientist Eric Cordes added from his university lab: "During exploration of the sea you do not know what you are going to find. Now you can involve specialists that you would not expect." Other advantages proved to be: operational and technical problem solving, and public outreach by interactive involvement of the public.

The Use of Surface Buoys for Ocean Observations

Ed Dever of Oregon State University presented the state of the art Ocean Observatory Initiative (OOI) buoy array that will soon be deployed off the coast of Oregon. The array is designed to be operational for 25 years and will have a two way communication to shore.

Yvo Witte of NIOZ presented another array of tethered surface buoys recently deployed in the Mid-Atlantic measuring the transport of Saharan dust. This dust has many relations with the global climate as studied in the project DUST-TRAFFIC by NIOZ scientist Jan-Berend Stuut.

Maintenance Free Flow-through-sea-water-system

Richard Finley of the University of Miami developed a fully automated flow-through-sea-water-system and had it installed on two major Caribbean cruise vessels. The project aimed for the installation of an Automated Meteorological and Oceanographic System (AMOS). The latest version of the AMOS design was based on the use of 'off-the-shelf' components, open architecture, low maintenance, high reliability, resistance to bio-fouling, remote operation and trouble shooting, and fully fail-safe shutdown. The first field results were very promising.

At the end of the conference, research institute IMR from Bergen, Norway announced that it will host INMARTECH 2016.