

Underwater Acoustics

The Underwater Acoustics (AO) Technical Committee (TC) met at the San Diego meeting on November 3rd, 2011, with Dan Rouseff chairing the meeting. Discussion of final preparations for the Hong Kong special sessions, and topics for the Kansas City and Montreal meetings were proposed. A representative of the Standards Committee spoke on the new ISO standard, and George Frisk was appointed chair of the new committee. Committee members were encouraged to propose names for a new UW TC chair (via email).

Underwater Acoustics had strong international participation in the Hong Kong meeting in May 2012. The UW TC meeting was held jointly with the Acoustical Oceanography TC, with DJ Tang – the incoming UW TC chair - acting as the meeting chair for UW. Six Special Sessions were held in Hong Kong, each with co-chairs and invited talks from both North America and China. The special sessions included Advances in Underwater Acoustic Communication and Networking, Sediment Acoustics on Continental Shelves, Time Series Analysis and Data Processing, Underwater Acoustics in Marginal Seas, and Waveguide Invariance. Bill Kuperman was recognized at the meeting for his notable accomplishments resulting in receipt of the ASA Gold Medal.

A revised statement of technical scope was presented at the Baltimore meeting and accepted by unanimous vote. The proposed new scope is:

The Underwater Acoustics TC is focused on sound-wave phenomena in the ocean and seabed, with primary emphasis on the following topics:

1. Propagation phenomena: steady-state and transient solutions of the wave equation, including boundary effects, and seismoacoustics.
2. Scattering and reverberation: characterization and quantification.
3. Ambient noise: noise sources, spectra, directionality, and spatial/temporal fluctuations.
4. Signal processing and sonar algorithms, with emphasis on the detection of signals in noise and statistical analysis.
5. Underwater acoustic instrumentation.

Dave Bradley gave a short presentation at the Baltimore meeting concerning the decline in the ONR funding for ocean acoustics and proposed that this concern be voiced in two letters, one from the ASA President and one signed by individuals in the acoustics community. A vote was conducted on the letter from the ASA, and passed overwhelmingly (ONR program managers abstained from the vote). Several ASA members signed the letter from the community. The ASA letter was approved by the Executive Council, and a signed copy is attached to this annual report.

DAJUN TANG
Chair, 2012–2015