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Title: (OA12) Measurements of true winds over the coastal region on small

Abstract:

An exiting novel technique, using a wind sensor with electronic comp more accurate determination of true winds on navigating small ships been successfully applied in the marine atmospheric boundary layer. Conventionally, true winds were estimated from platform winds using over the ground (COG) and speed over the ground (SOG). When ship is relatively low compared to marine current and wind speed, ship's h trends to veer away from COG. Especially for small ships, these condi large heading deviation from COG frequently taken placed in coastal v make estimated ship's winds unreliable. Recently, it has been known estimating true winds can be more accurate when the accurate ship's heading are available all the time. In case heading data are not availa true winds can be measured with the platform winds referenced adeq to true north using recently developed electronic compass for ship's w sensor. Measurements of ships referenced platform wind and platform referenced to true north with electronic compass were carried out ove various size of platforms including a R/V Onnuri, Naval vessels, and s commercial boats. Parameters including the ship's heading, COG, SOG heading were also simultaneously measured and employed for correc computation of true winds from ship's referenced platform winds and referenced to true north. Correct computation of true winds and quali control methods are demonstrated and evaluated using actual field measurements and simulating data.

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