

GNSS Performance Standards in the Maritime Domain

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SUMMARY

The primary means for electronic position fixing in use in contemporary maritime transport are shipborne GPS (Global Positioning System) receivers or DGPS (Differential GPS) receivers. More advanced GNSS (Global Navigation Satellite System) receivers able to process combined signals from American GPS, Russian GLONASS, Chinese Beidou (BDS), European Galileo, Indian IRNSS, Japan QZSS, and satellite-based augmentation systems (SBAS) are still relatively rare in the maritime domain. The issues of existing IMO requirements, performance standards, and future concepts of integrity monitoring for maritime position sensors are discussed and presented in the paper. Their impact on GIS, marine cadastre, and risk management systems using such maritime GNSS data is analysed as well.