



8<sup>th</sup> EGO Meeting and  
International Glider  
Workshop

Presented by  
UG<sup>2</sup>/EGO

May 21–23, 2019  
Rutgers University, New Jersey

## Lessons learned in the practical application of glider quality control tests in an ocean observing system

Laura Nazzaro | Rutgers University

### Abstract (Poster)

Gliders are powerful tools for data collection and real-time delivery of high-resolution data, providing full water column data at high spatial coverage. There is community guidance on several quality control measures currently available for deployments around the globe including time offsets and Quality Assurance of Real-Time Ocean Data (QARTOD) tests. These QARTOD tests are intended for real-time data streams and include gross range and climatological thresholds, spike identification, maximum rate of change, and others. Several of these tests are being implemented, but ensuring that this data is the best possibility quality still remains a challenge. In our experience this is particularly evident in the summer conditions of the Mid Atlantic Bight where a seasonal thermocline meters wide isolates a very cold bottom water mass from the much warmer surface layer. While certain tests are straightforward, others can be difficult to apply in a practical way due to issues defining thresholds in regions or seasons with a lack of available data, issues with strong and variable thermoclines (or the opposite, extremely well-mixed water), and issues due to a rapidly changing climate. This presentation will build off our experience to summarize the benefits of the existing tests, discuss the challenges not adequately addressed by them and propose potential solutions to address these challenges.