Recent Developments of the RAPID 26N Array

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The RAPID-MOCHA mooring array has been in place since 2004 monitoring the Atlantic Meridional Overturning Circulation (AMOC). The design of the array has evolved since it was first deployed in response to science needs and for mitigation of data losses. The result of these improvements is a high-quality continuous timeseries of the AMOC from 2004-2018, with the array next being serviced in 2020.

In addition to the core measurements required for the overturning calculation we have recently been adding additional sensors to the array for other projects. These include biogeochemical sensors for the ABC Fluxes project, and sensors for boundary process studies as part of the MerMEED project. The RAPID array is maintained and regularly serviced every 18 months and so can provide a platform for these supplementary measurements from shorter duration projects.

We have also been developing two telemetry systems for the return of data from the subsurface moorings. These systems are nearing operational readiness and could be extended for use on other projects using moorings.

Here, we will present an update to the RAPID operations since the last servicing (autumn 2018) highlighting new technological developments and evolving best practices.