

# **Behavior of the Wyrтки Jet observed with surface drifting buoys and satellite altimeter**

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## **Abstract**

Analyses of up-to-date data from satellite-tracked surface drifters indicate that the Wyrтки Jets (WJ) of the equatorial Indian Ocean (EIO) are developed firstly in the central EIO between 75°E and 80°E and then propagate westward along the equator at speeds of about 0.7m s<sup>-1</sup>. Climatologically, the fall jet is both stronger and wider than its spring counterpart. This westward propagation phenomenon is supported by altimetry observation. It is suggested that the westward propagation of the jets in the western EIO (55°-75°E) is primarily forced directly by the westward propagating zonal winds. Whereas in the eastern EIO (east 80°E), propagation of the jet signals is ambiguous although the zonal wind pattern is observed moving east. It is also evident that the WJs are subject to strong interannual variability, which may associate with El Niño/Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD).