

Satellite Observations of the Somali Jet in the Arabian Sea

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The Arabian *Sea* has the second largest, Southern Ocean having the largest, surface wind speed over the global **ocean** during Northern Hemisphere summer. The first part of the **talk** deals with **wind** generated ocean response. In the central Arabian Sea, the vertical velocity at the bottom of the ocean **Ekman** layer lifts and deepens, respectively, the thermocline north and south of the **axis of the Somali Jet**. **Thus**, the sea surface is higher south of the Somali Jet **axis** compared to the north region and, consequently, an eastward geostrophic current is postulated, which was measured with satellite-tracked drifting buoys. In the second part of the **talk**, an atmospheric response to the Somali Jet is described, **As** the Somali Jet expands across the Arabian Sea after its onset **off** Africa, the surface wind convergence in the eastern Arabian Sea increased **3** fold compared to the amount of convergence before the onset. During 1988 – 1989, the time of onset of the Somali Jet, defined by the occurrence of **12** m/s wind speeds for six days, always preceded the onset of monsoon rains in Goa. When the monthly mean intensity of the Somali Jet was above normal, there was excess rainfall along the **India** west coast, and vice versa. A weaker **Somali** Jet accompanied El Nino; a stronger Jet was associated with La Nina.