

Current state of the climate conditions- SECOND DRAFT

The spring of 2010 is a season of the El Niño decay. Although El Niño is still ongoing, and sea surface temperature (SST) anomalies near the coast of South America even increased up to 2°C, the part of equatorial basin with positive anomalies and the average anomaly continue to decrease. Observed SST temperature decrease in the Humboldt current reduces the heat supply from the Southern Hemisphere. According to forecasts El Niño will persist in the next 2–5 months, but the ocean influence on atmospheric circulation will weaken. Majority of dynamical and statistical models predict near neutral ENSO conditions for summer. In general clearly pronounced El Niño / La Niño events are associated with more skilful global seasonal forecasts. This might not be the case in the forthcoming summer. Colder than normal SSTs prevail in the northern mid-latitudes in Pacific Ocean.

High SST anomalies are registered in the tropical Atlantic, and this positive anomaly is likely to persist during the summer. This might result in increased cyclogenesis over this region, including higher than normal number of tropical cyclones. Intense positive SST anomalies take place between Labrador and Greenland. In Indian Ocean (especially in its northern part) SST is warmer than usual.

In the recent weeks the Icelandic Low was weakened. Weakened during most of March the Azores high in April became normal in its intensity and location. The planetary upper-level front was very unstable: abrupt deviations from its mean climate location and breaks took place. The eastern wind phase of the quasi-biennial oscillation increased in the equatorial stratosphere.

The persistency of primary atmospheric circulation patterns characterized by teleconnection indices is quite low and they can not be extrapolated into the summer reliably enough. Furthermore, the whole set of these modes explains about a half of the atmospheric variance, that is substantially less than in winter.