

**SOLAR INFLUENCE ON SUBDECADAL VARIATIONS OF EARTH
ROTATION, MSL AND CLIMATE, DERIVED BY HARMONICS OF
HALE, JOSE, DE VRIES AND SUESS CYCLES**

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The solar activity cycles affect all surface geosystems, including weather and climate indices, winds, rains, snow covers, mean sea level, river streamflows and other hydrological cycles. The mean sea level and polar ice changes cause common variations of the principal moments of inertia and Earth rotation with decadal, centennial and millennial periods. The mean sea level, Earth rotation and climate indices have also some oscillations with periods from several months to 40 years, whose origin is not connected with the known tidal, seasonal or solar effects. The shape of solar cycles is rather different from sinusoidal form, so they affect geosystems by many short-term harmonics. A possible solar origin of subdecadal variations of Earth rotation, mean sea level and climate indices is investigated by the harmonics of 22-year Hale cycle and 45-year cycle of equatorial solar asymmetry. The solar influence on 13-year oscillations of climate and Earth rotation is analyzed by the harmonics of Jose, de Vries and Suess cycles with centennial periods of 178.7, 208 and 231 years.