



Short term geophysical excitation of the polar motion

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Short term geophysical excitation of the polar motion That study is devoted to the interpretation of the short term polar motion (periods ranging from 2 to 20 days). Whereas it represents less than 0.2% of the total polar motion amplitude, its variations are not less interesting than the seasonal ones, but are more difficult to determine and to interpret. According to the common view, they reflect weekly changes in the mass redistribution of the atmosphere and oceans. That interpretation is revisited by comparing the later up to date atmospheric and oceanic angular momentum series to the excitation found in various polar motion series. Global comparison is very satisfactory. In particular, effect of the normal atmospheric mode Ψ_{11} (10 days) is striking and the tidal oscillation in polar motion at 13.6 days is partly harmonic : it presents variation in amplitude and phase because of the geophysical fluid influence. Finally we show the degradation of pole coordinates determination for periods approaching the Nyquist period of 2 days in the routine pole series.