quantitative resemblance and in this way the validity of the data analysis method has been verified as well. The altitude and latitude structure of the SABER planetary waves clearly indicated that the stratosphere and mesosphere (30-90 km) are coupled by direct vertical propagation of the planetary waves, while the lower thermosphere (above 90-95 km altitude) is only partly connected with the lower levels indirectly trough in situ generation of disturbances by the dissipation and breaking of gravity waves filtered by lower atmospheric planetary waves. The temporal evolution and spatial structure of the migrating and nonmigrating 24- and 12-h tides with zonal wavenumbers up to 4 have been studied as well. The emphasis was on the nonmigrating tidal activity related to the major SSW in the Arctic winter of 2003/2004.

Mesospheric/lower thermospheric winds, tides and mesopause temperatures at low latitudes from meteor radar and satellite observations

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Winds at mesospheric/lower thermospheric altitudes between 80 and 100 km and temperatures around 90 km are derived from all-sky meteor radar observations at latitudes between 9°N and 22°S and longitudes between 77°E and 315°E. The data are acquired with identical radar systems and detection software. The six SKiYMET radars are located at Trivandrum (9°N, 77°E), Kototabang (0.2°S, 100°E), Cariri (7°S, 323°E), Learmonth (22°S, 114°E), Rarotonga (21°S, 200°E), and Cachoeira Paulista (22°S, 315°E). Wind tides are determined for the year 2005 using 4-d, 10-d, and 60-d composite days. The results provide information about the variability of the diurnal, semi-diurnal, and ter-diurnal tide at low latitudes. The seasonal variability of mean winds, temperatures, and tides is discussed. For the latitude 22°S the seasonal variation of the migrating tides is estimated using the observations at three sites which are well separated in longitude. The radar results obtained from 60-d composite days agree well with diurnal tides derived from TIDI observations on the TIMED satellite. The tidal signatures derived during the first measurement campaign of the CAWSES Global Tidal Study in September/October 2005 at low latitudes are discussed in relation with observations at middle and high northern latitudes.

Equatorial middle atmosphere wind observations with Jicamarca meteor radar

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Jicamarca All-sky Specular Meteor (JASMET) VHF radar was installed in Jicamarca, Peru (11.95°S, 76.87°W) in 2005 and the first campaign was conducted in June 2006: Various parameters including wind and ambipolar diffusion coefficient can be derived from meteor trail echoes. Details of the equipment,