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The CAWSES global tidal campaign

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Atmospheric tides are global in nature, dominate the dynamics and constituent signatures in the mesosphere and lower thermosphere and modulate the ionized components in the ionosphere. They are thought to be forced by tropospheric and stratospheric heating and non-linear interactions amongst themselves and with planetary waves. In spite of their prominance, they are only partially understood because their specification requires global observations of their sources, their propagation characteristics, their effects and the background atmosphere through which they propagate.

The CAWSES global tidal campaign has been organized to coordinate and facilitate work by various groups around the world on understanding terrestrial tides. This effort will provide global data sets for several concentrated time periods. These will allow the characterization of the heating sources, tidal components, and tidal effects from the surface of the Earth to the ionosphere, support and support and stimulate the use of models to simulate the conditions during these campaigns.

The first tidal campaign took place from September 1 to October 31, 2005 to coincide with the "World Month" campaign undertaken by the Incoherent Scatter Radar community. Radar, optical instrumentation, ionospheric observations and satellite data were collected collected during this time period and are now starting to be analysed. A second campaign has been announced for this spring. In this paper we describe the overall organization of this effort and initial insights gained from the first campaign.