

UPPER ATMOSPHERIC RESEARCH IN BRASIL

by

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ABSTRACT

The main centre for upper atmosphere research in Brazil is the Space Research Institute (INPE), although some work is also carried out at other research centres and universities. Work is in progress in the following areas: stratospheric ozone, stratospheric aerosols, atmospheric dynamics, including tides and gravity waves in the middle atmosphere, and minor constituents in the middle atmosphere. Experimental techniques in use include laser radar, low light level photometry of atmospheric emissions and rocket experiments. Areas of specific interest include the photochemistry of the mesosphere and lower thermosphere, with particular reference to the minor constituents, atomic oxygen, hydroxyl, sodium and ozone, the dynamics of this region, including studies of tidal modes and gravity wave propagation characteristics and the mechanisms involved in the production of excited species. Another subject of interest is that of thermospheric dynamics, studied by measurements of the Doppler shift of the OI 6300 Å F-region emission. Ozone research will be treated in a separate presentation and will not be discussed here.