

ATTITUDE CONTROL MODES FOR A REMOTE SENSING SATELLITE

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ABSTRACT

The MECB (Brazilian Complete Space Mission) remote sensing satellites will operate from a circular polar heliosynchronous orbit to take pictures from the Earth in two visible bands, with global coverage of 4 days. These satellites will be three axis stabilized with active attitude control.

This paper presents the operating modes of the attitude control subsystem and the several manoeuvres necessary to lead from unknown attitude and angular rate, after separation, to nominal Earth pointing for taking pictures. Some options for the attitude control hardware are discussed and preliminary results of manoeuvre simulations are also presented.