THRUST BALANCE FOR TESTING MICROTHRUSTERS

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The impulse is an important parameter for the design and qualification of propulsion systems that are used for orbit—and attitude control of satellites. In These systems.—the thrusters develop a very low infrust 10.5 to 20.0 Newtons) and operate either in a continuous or pulse modes—with pulses on the order—of—5—will seconds.

One of the ways to determine the impulse is by means of integrating the thrust developed in a certain interval of time. This is done by measuring the thrust with a transducer coupled to some kind of recording device.

In this work the design of a thrust balance for use in the 4 to 100% range is presented. This stand will be used in the test of both hydrazine and bipropellente microthrusters currently undergoing development for the MECB satellite project.