

### **2010-2011 TigreSAT Monthly Progress Report**

#### **EQUIS ADS 2010 PAYLOAD**

No changes to the payload since it had passed all the test, requirements and integration necessary for LSU HASP platform has been performed. Calibration is needed for the Accelerometer and Gyroscope and we have been working on an instrument that will be able to calibrate magnetometer, accelerometer and gyroscope. The device to obtain the calibration equations was constructed, minor adjustments are needed; therefore, calibration shall be completed in the next weeks. It is important to explain that we are just obtaining the equations for the payload; no changes will be done to the payload's software, structure and electronics. The calibration equations obtain will be used for post flight analysis; consequently the ADS payload is ready for flight.

#### **TigreSAT 2011 PAYLOAD**

During the month of May the TigreSAT project has worked on the soldering of the ADS board that will be place in the 1U Cube insulated with kapton. To the moment we have on the cube four boards one for the Attitude Determination System (surface mount with Arduino), two for the thermistor (Gum stick), and one for the solar panels. So far we will fly a one cube with solar panels and the boards mention previously. Thermal tests will be performed during the month of June to ensure it past the CSBF thermal and vacuum test. The completed code consists of obtaining data from all the sensors and sending it to the SD card and telemetry to allow up/downlink.

## TigreSAT 2010 & 2011 May Monthly Report



ARIES Students and Tasks	
Students	Task
Javier Espinosa	ADS, ACC
Jose Molina	SDT
Victoria Gonzalez	Thermal Analysis
Abdiany Rivera	Structure
Ana Espinal	Electrical
Jose Almonte	Sun Sensor
Nestro Vargas	Solar Panel Characterization
Jose Fermin	Solar Panel
Erika Portilla	SDT
Juan Colón	SDT, Telemetry
Mairim Nieves	SDT, ACS
Jorge Quinones	SDT, SD Card
Abel Torres	SDT, Gyroscope
Hugo Pastrana	SDT, Accelerometer
Raully Torres Cruz	SDT
Juan G. Rosado	SDT, GPS
Alexavier Roman	SDT
Damian Miralles	SDT
Alexander Santiago	Mechanical
Daniel Webster	Electrical

Table 1 Student Member for TigreSAT