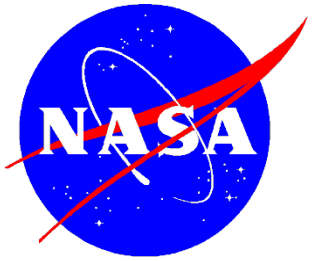
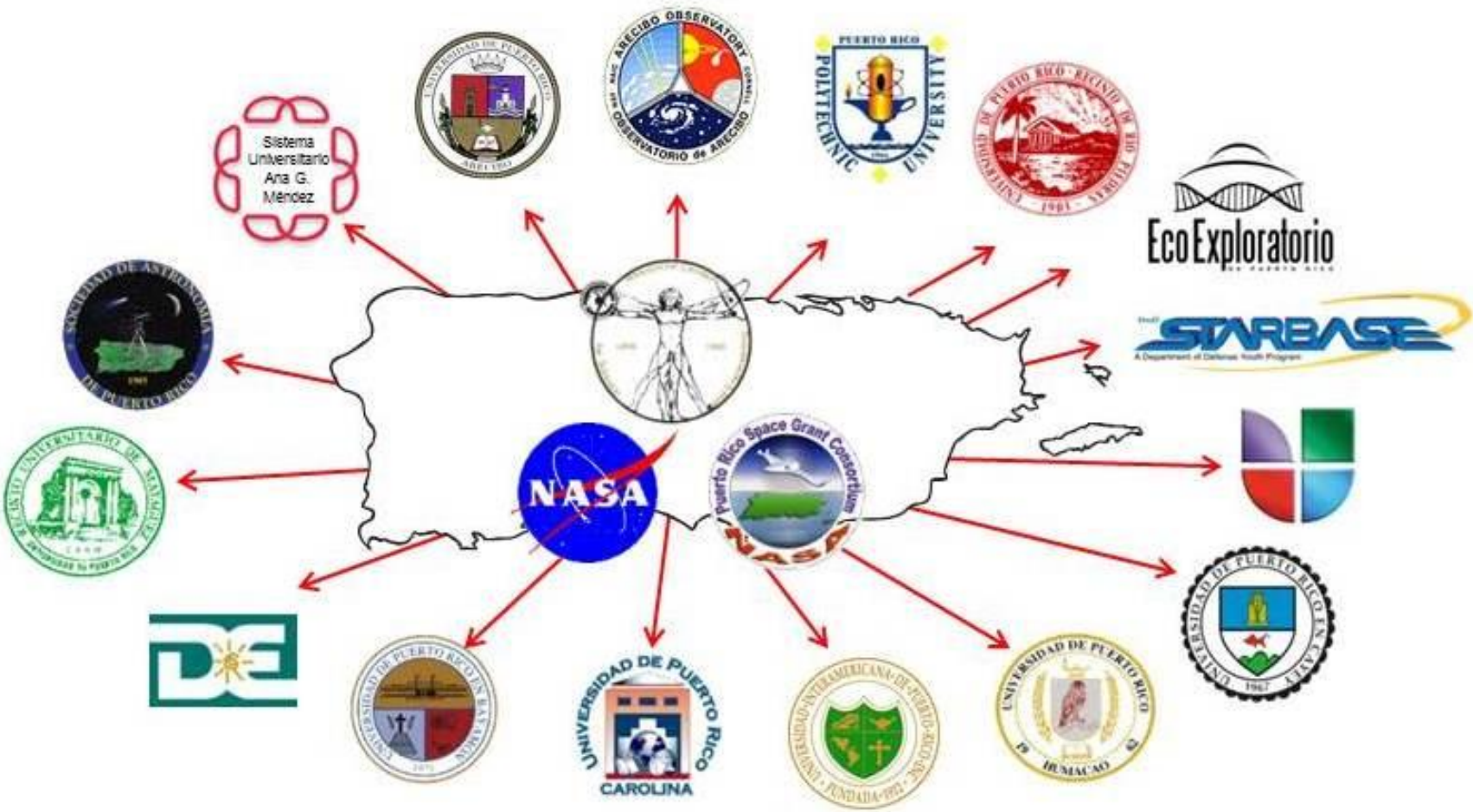


PR NASA Space Grant Consortium

FY 2014 Research Highlights

Gerardo Morell, Project Director

PR NASA Space Grant Consortium



15 institutions covering all geographic areas and socioeconomic levels of Puerto Rico

PR Space Grant Research Projects

Project Title: Off-the-Grid Weather Radars for NASA Global Precipitation Mission Ground Validation and Tropical Troposphere Sensing
PI: Dr. Leyda I. León, UPR Mayagüez
NASA POC: Manuel Vega, NASA Goddard

Project Title: Mechanisms of Tropical Ecosystem Functions in Responses to Land Use and Climate Changes
PI: Dr. Qiong Gao, UPR Río Piedras

Project Title: Transport Properties of Graphene in the Presence of Disorder and Many-Body Effects
PI: Dr. Julian Velev, UPR Río Piedras
NASA POC: Dr. M. Meyyappan, NASA Ames

Project Title: Developing Holey Graphene Nanosheets and their Nanocomposites Towards High Performance Energy Storage
PI: Dr. Zhongfang Chen, UPR Río Piedras
NASA POC: Dr. John W. Connell, NASA Langley

Rocket Satellite Project
(O. Resto + COSGC + NASA Wallops)

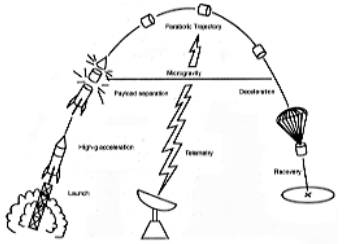
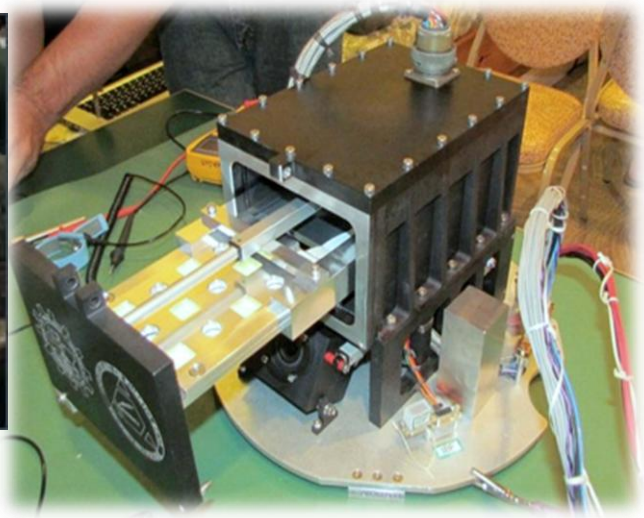
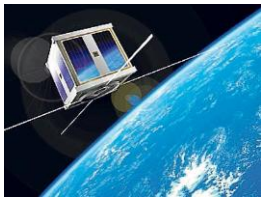


Figure 5. Rocket Parabolic Flight Profile.

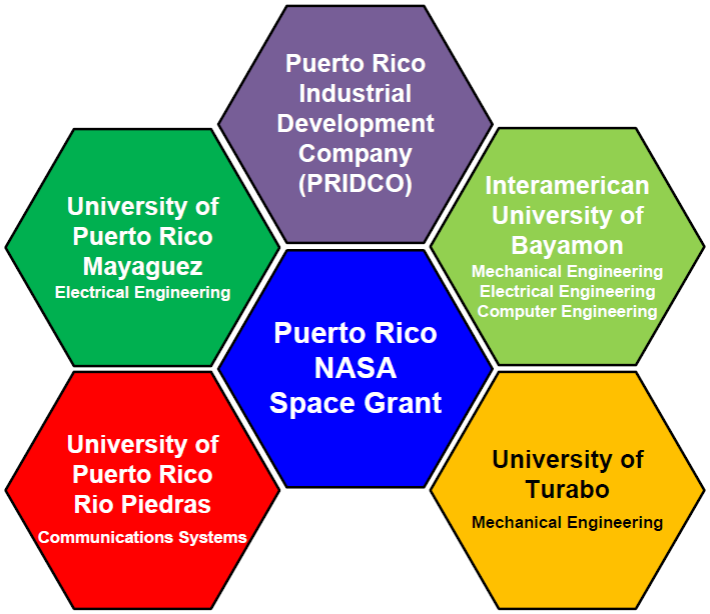


Astrobiology: sampling the atmosphere for life forms capable of surviving in extreme environments.



Cube Satellite Project

A. Rincon (IAU) + P. Capo (NASA MSFC)



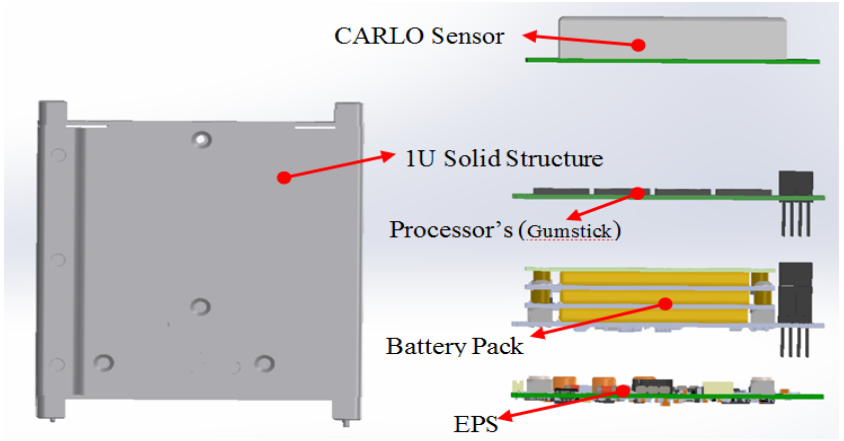
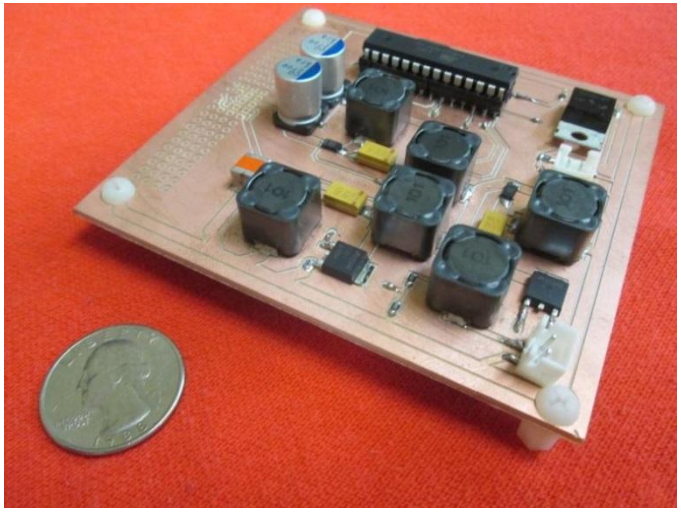
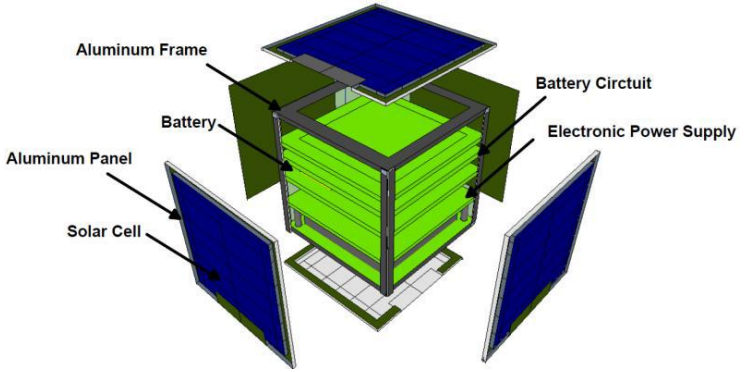


Figure 3. 1U CubeSat like proposed package

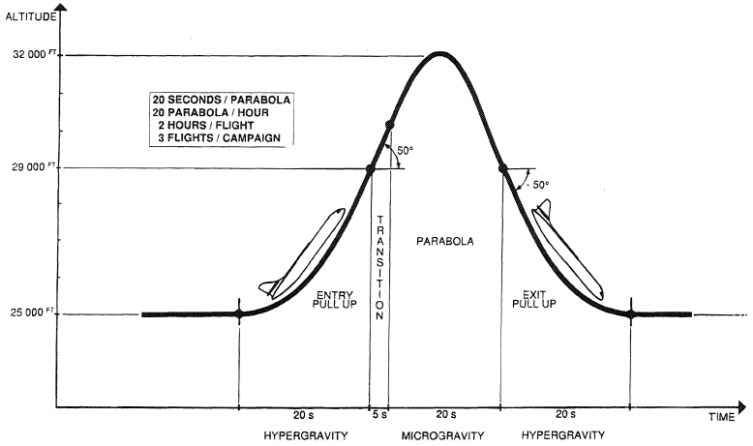


Charge Analyzer Responsive to Local Oscillations (CARLO) was designed to measure turbulence in the ambient space plasma ions up to 10 kHz.



Microgravity Experiments

E. Nicolau and C. Cabrera (UPR) + M. Flynn (NASA ARC)



Performance of a nanocatalyst-based direct ammonia alkaline fuel cell (DAAFC) under microgravity conditions for water reclamation and energy applications.