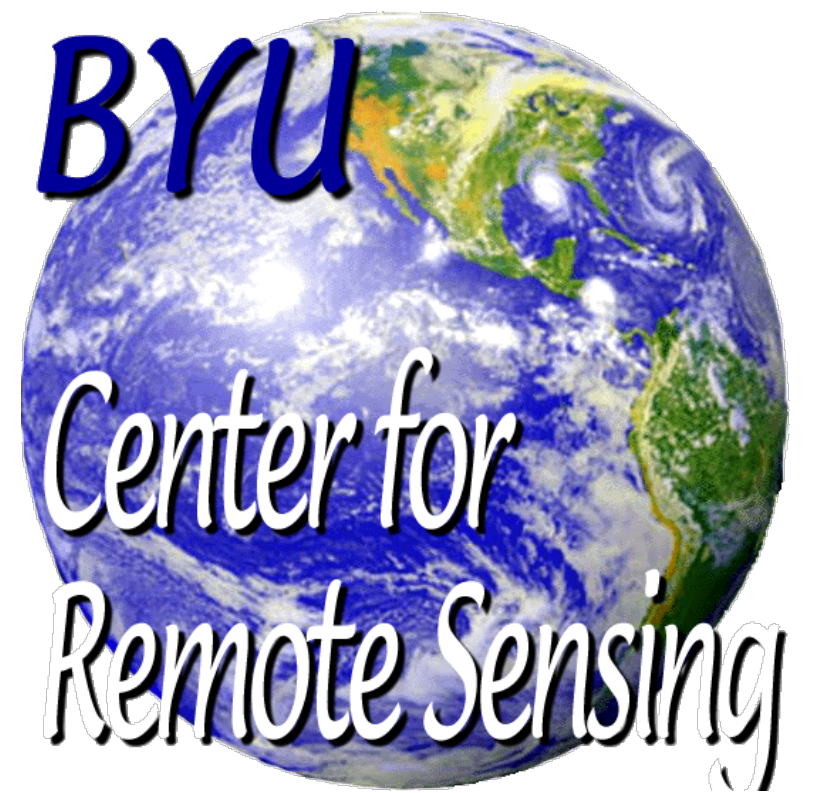


BYU Passive Inspection CubeSats (PICS)

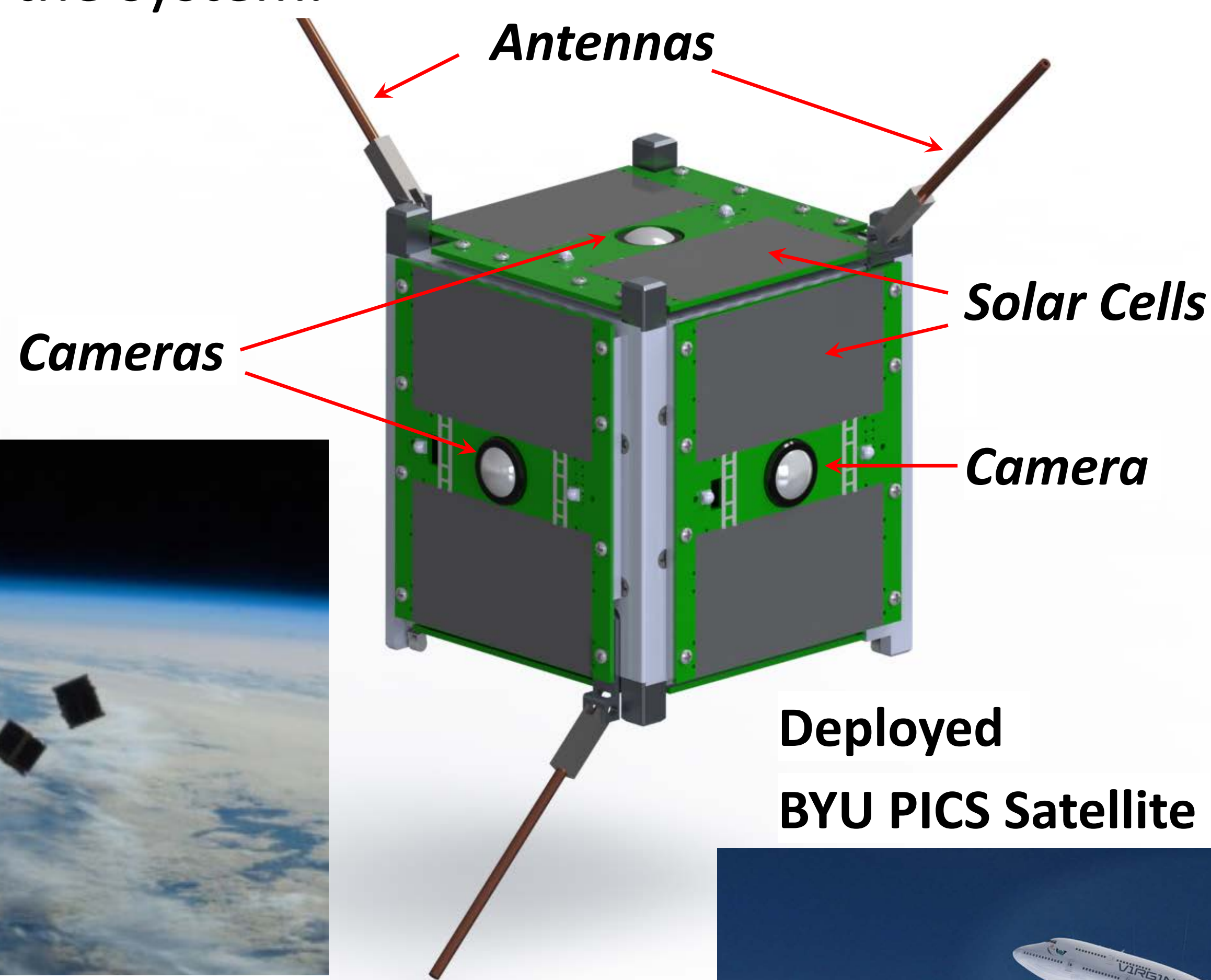
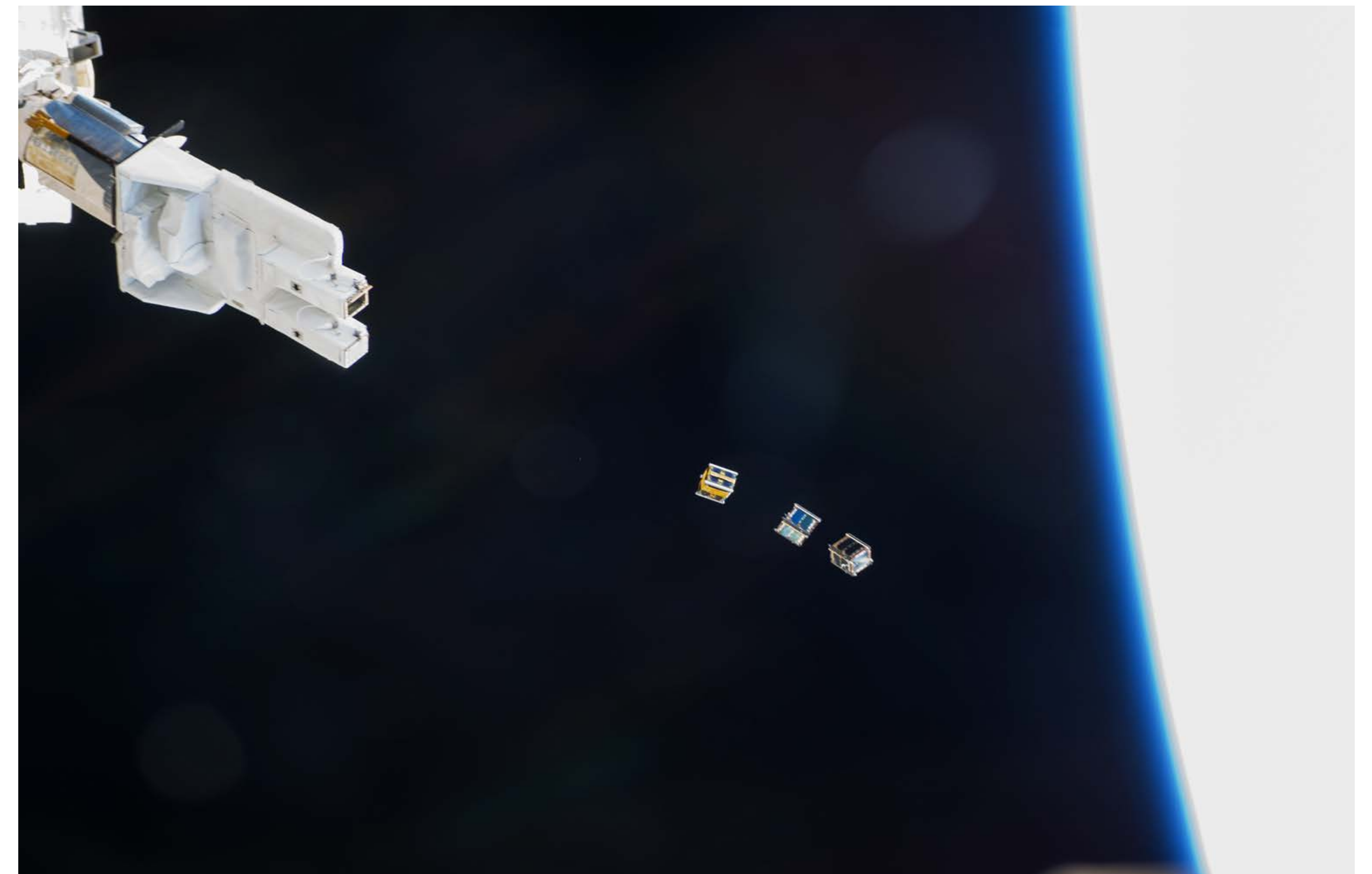
Launch date: Dec. 2017 on the Virgin Galactic Launcher One



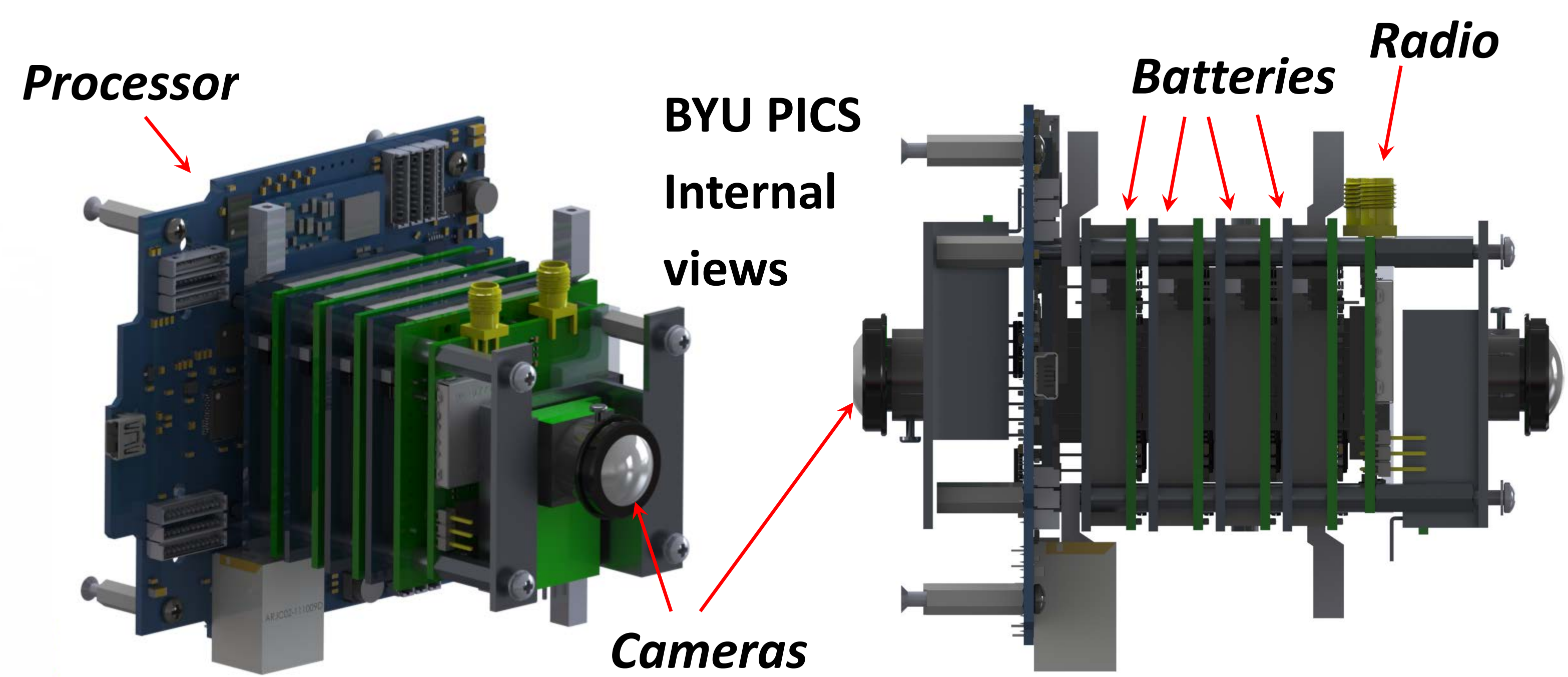
Passive Inspection CubeSats are the lowest risk solution to spacecraft remote inspection with the most opportunity for expansion. Supported by NASA USIP and NASA CSLI.

The **BYU Passive Inspection CubeSat (PICS)** is the first stage of a series of technology demonstration missions for spacecraft capable of performing inspection, maintenance and assembly on another spacecraft. PICS will demonstrate ultrafast booting and power-up operation of system electronics and the low-risk inspection of the exterior of a spacecraft by a passive, inexpensive flyaway probe. Two flight systems deployed simultaneously will enable the collection of image data from each other as well as the parent spacecraft. Both units include spherical imaging capability using a camera on each face of the 10 cm cube so that attitude control is not required, which simplifies the system.

Three 1-U Cubesats being deployed from the ISS



Deployed
BYU PICS Satellite



BYU PICS
Internal
views



PICS deployment concept



Virgin Galactic Launcher One is dropped from aircraft and rockets into orbit

Project is student-lead with faculty advisement
 Faculty PI: David Long (ECEn)
 Faculty Senior Proj: Karl Warnick (ECEn)
 UG Lead: Patrick Walton (ME)
 Mostly ECEn students with some ME UG students working on the project

Delivery: 10/17/2017
 Launch: 12/30/2017

