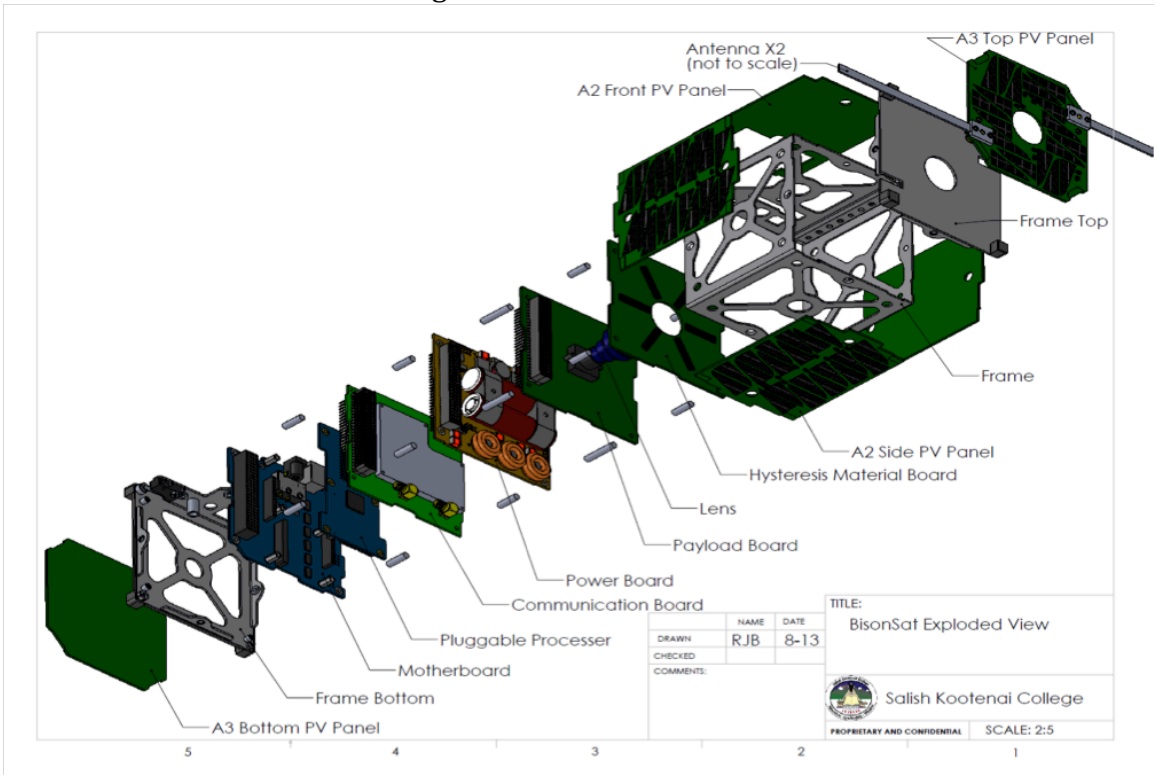
BisonSat – Salish Kootenai College – 1U



BisonSat has primarily an educational objective of training undergraduate engineering and science students on design, build, test, and operation of space hardware. The science payload is a visible light camera for land cover classification, and cloud cover and cloud height measurements.

BisonSat will power on immediately upon deployment from the P-POD and start timers that will trigger deployment of the uplink and downlink antennas 15 minutes after deployment and begin beacon transmissions 45 minutes after deployment. After verifying uplink capability and performing initial system checks science operations as directed by uplink commands will began approximately 3 days after deployment and are expected to continue for a minimum of 6 months.

The BisonSat structure is made of 5052-H32 aluminum, and contains mostly COTS components (PCBs, solar panels, external antennas, magnetic materials, camera optic). The antennas, camera board, hysteresis material board, and one of the six solar panels were designed by the BisonSat team.

There are no pressure vessels, hazardous, or exotic materials.

The COTS electrical power system consists of lithium-ion batteries with over-charge/current protection circuitry. The UL listing for the batteries will be provided by the power system vendor to APIC safety personnel.