



Small satellite missions

Developing Australian capability to design, build and operate space missions to meet national objectives.

The domain of space is changing rapidly, including the move from large satellites costing billions of dollars and decades in development, to small disposable satellites that can cost less than one million dollars and have development cycles measured in months. DST's research in this area is initially based on the Cube Satellite (CubeSat) form factor with a launch mass of typically 5 to 15 kg, with attention later shifting to the 100 kg class.

The strategic aim is to develop a measured, but advanced, Australian capability to design, build and operate space missions to meet national objectives.

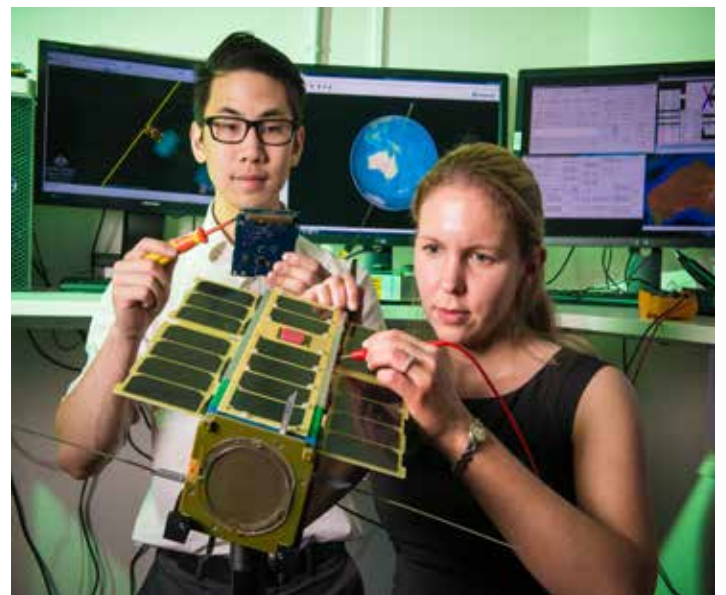
DST's current mission is *Buccaneer*. *Buccaneer* will fly an advanced high frequency receiver to provide far-field calibration measurements for the Jindalee Operational Radar Network (JORN). These measurements will enhance the capability of JORN to more accurately locate targets such as aircraft.

The *Buccaneer* program consists of two separate launches with the first focussed on proving the technologies involved and the second on conducting the main mission. The first satellite was launched in November 2017 and the second satellite is expected to launch in the 2019+ timeframe.

Buccaneer has been developed in collaboration with University of New South Wales, Canberra.

Partnering opportunities

DST seeks to partner in developing novel small satellite payloads for Defence applications.



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