

Radarsat Constellation Mission (RCM)

Northeast supported the RCM initiative from its inception, working for Magellan/Bristol Aerospace who are providing the spacecraft bus. Mr Buckingham was also an observer at early RCM User and Science Team meetings.

Many physical configurations were initially considered for the RCM satellites with their relatively large C-band SAR antenna panels. Northeast provided independent assessments and additionally suggested several spacecraft concepts often accompanied by physical scale models, as well as novel technical approaches. For general info on RCM see

http://www.eoportal.org/directory/pres_RCMRADARSATConstellationMission.html

One novel approach that was adapted by RCM was Mr Buckingham's suggested scheme to isolate the effects of the thermal-structural distortions of the spacecraft bus on the extended SAR antenna using a kinematic mounting interface.

One potential launch vehicle circa 2006 was Russia's Dnepr. Mr Buckingham was part of a team that visited Kosmotras, supplier of Dnepr, in Moscow. He subsequently recommended an approach to efficiently insert a heavier satellite into RCM's orbit than would be possible using only Dnepr's throw capability. In 2010 India's PSLV launch vehicle was being considered and Northeast participated in some early discussions among Bristol, MDA and Antrix Corporation who supply PSLV. The PCW bus is now in the detailed design stage. Northeast's final task for RCM was to provide Bristol with an independent assessment of the overall bus, accompanied by recommendations.