

Topics (T)

Earth Observing Missions and Systems to Address Climate Change and Its Impacts [3] (3C)

Author: Mr. Isaac Holliss

New Zealand Space Agency, New Zealand, isaac.holliss@mbie.govt.nz

METHANESAT SPACE MISSION: DELIVERING CLIMATE IMPACT THROUGH NOVEL PARTNERSHIPS

Abstract

The growth of the global space industry has created opportunities for new players to operate complex space missions that produce high value science products and deliver global impact. The MethaneSAT mission is a case study of the type of partnership that can be unlocked by today's space sector.

Combining high precision, resolution and a wide swath, MethaneSAT will fill a current gap in methane remote sensing capability. It will primarily quantify and map emissions from global oil and gas production. It will also measure emissions from other sources such as industrial agriculture and landfills.

In addition to flying a new imaging spectrometer, the mission brings together a unique partnership that is led by an environmental non-government organisation and involves emerging space nations, not-for-profit organisations, commercial space firms, and research institutions.

Our presentation will provide an overview of New Zealand's rapid journey as a space-faring nation and New Zealand's objectives for partnering with the Environmental Defense Fund in the MethaneSAT mission. We will also present on the capability of the satellite to quantify methane emissions from agricultural targets, a key objective for New Zealand's involvement.

We will introduce the New Zealand parties to this collaboration and how they are interfacing with counterparts in the US. We offer an example of how diverse stakeholders can work together to deliver a complex space mission to achieve climate change impact.