Direct Reception from UK-DMC2 Satellite, as a Tool for Sustainable, Frequent and Large Area Monitoring

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The paper focuses on the benefits of the UK-DMC2 satellite near-real-time imaging by direct broadcast mode. It states the features and specifications of the satellite data, how the data is used globally and how the direct reception service contributes to the development of the country.

For example, DMCii works closely with Brazil's National Institute for Space Research (INPE) to monitor forest clearing in the Amazon rainforest and target illegal logging in near-real-time. In 2012 UK-DMC2 data was a sole data source for monitoring deforestation in the Amazon Basin, delivering data daily to its ground receiving terminal.

Large countries, especially insular ones, require more complex monitoring systems based on remote sensing solutions. Having its national receiving terminal is a good solution for a long term, more cost effective monitoring system, using satellite data.

The UK-DMC2 satellite, built by Surrey Satellite Technology Ltd. (SSTL), UK, provides 22m resolution multispectral data, up to 650km swath and up to 900km along track imaging capacity, with 3 day revisit capability. The data is now available for download directly to X-band receiving station, providing a regular and frequent coverage of the whole reception circle. With just the basic package, 5 million square kilometres of data can be delivered per month in near-real-time, which enables more frequent monitoring at the national level. It is a big advantage for tropical countries, in order to obtain cloud free datasets.

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