



WildFireSat – Unlocking the Potential for a Global WildFire Monitoring Service

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ABSTRACT - To increase its capability to monitor wildland fires, the Government of Canada has initiated the first step of the development of a satellite system dedicated to wildfire monitoring. This system, called WildFireSat, will provide data for the whole of Canada on a daily basis, more specifically in the afternoon when fire activity is at its peak. Data users such as the Canadian Forest Service (CFS) for wildfire management purposes, and Environment and Climate Change Canada (ECCC) for carbon emission reporting and smoke and air quality forecasting purposes, will have access to the data within 30 min of data acquisition. Apart from its direct benefits, WildFireSat is meant to serve as a steppingstone towards the achievement of a longer-term goal: the realization of a future, potentially commercial, satellite constellation that would provide global, continuous, near real-time wildfire monitoring services. WildFireSat could help prepare the user community in Canada and possibly abroad, and thus create the user base that would be needed to make a strong business case for a future global operational wildfire monitoring data service. Other nations are welcomed to join the WildFireSat initiative and to help pave the way towards a global, continuous, near real-time wildfire monitoring service in collaboration with the international community.

Keywords: remote sensing, Earth Observation, thermal infrared, wildfire management, carbon emission reporting, smoke and air quality forecasting.

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