

WildFireSat: Operationalizing of Wildfire Remote Sensing Science

Joshua M. Johnston^{1,*}, Helena van Mierlo², Didier Davignon³, Tom Schiks^{1,4}, Alan S. Cantin¹, Colin McFayden⁵

ABSTRACT- Early in 2019 the government of Canada provided pan-departmental support for the initiation of the WildFireSat satellite mission, to be launched in or around 2024. The Canadian Forest Service leads the initiative to adapt fire monitoring science to deliver the world's first truly operational dedicated wildfire monitoring satellite mission. WildFireSat is designed to address critical gaps in satellite fire monitoring for Canada's unique geography, and to primarily address the needs of wildfire management. This presentation provides a summary of the system design, alignment with existing systems, tier 1 and 2 data products, and the concept of operations (CONOPS) which will deliver comprehensive situational awareness to Canadian fire managers and decisions-makers in near-real-time, and support smoke forecast services. The intention of the presentation is to initiate discussions with respect to broadening the mission scope to include the international community.

Keywords: Wildfire; fire monitoring; mapping; thermal infrared; wildfire management; carbon emission reporting; air quality forecasting; smoke forecasting; data service

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1. Canadian Forest Service, 1219 Queen Street East, Sault Ste Marie (Ontario) Canada, P6A 2E5
 2. Canadian Space Agency, 6767 route de l'aéroport, Longueuil (Québec) Canada, J3Y 8Y9
 3. Environment and Climate Change Canada, 2121 route Transcanadienne, Dorval (Québec) Canada, H9P 1J3
 4. Faculty of Forestry, University of Toronto, 33 Willcocks Street, Toronto, (Ontario) Canada, M5S 3B3
 5. Ontario Ministry of Natural Resources and Forestry, Aviation, Forest Fire and Emergency Services, 95 Ghost Lake Rd, Dryden (Ontario) Canada, P8N 2Z5
- * Corresponding Author: joshua.johnston@canada.ca