WILDLAND FIRE CANADA 2010
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On-Site Program

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Ontario
Ministry of Natural Resources
Aviation, Forest Fire and Emergency Management

Natural Resources Canada
Canadian Forest Service

Ressources naturelles Canada
Service canadien des forêts

Night-Vision Device Aided Aerial Forest Fire Detection: Experience in a Controlled Test Grid

Presented by: Tetyana Andriychuk, Centre for Vision Research, York University

Early detection of forest fires, while still in their emergent stages, could greatly improve suppression effectiveness and reduce overall costs. When used for aerial detection patrols, night vision devices (NVD) have potential to improve response times to potential starts and to improve sensitivity.

The results demonstrate that small fires can be detected and reliably discriminated using NVDs at night from distances compatible with typical daytime aerial detection patrols. The trials provide guidance on altitude and spacing requirements for detection patrols and for cues to discriminate environmental light sources from fires. Analysis of detection performance in ongoing field experiments will help to evaluate the utility of and determine best practices for NVD-aided detection of wildland fires.

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Poster #	Poster Description
P1	**FireHawk – Digital Fire Reporting from Aircraft** *Presented by Colin McFayden, OMNR - Aviation Forest Fire and Emergency Services (AFFES)*
P2	**ForestWatch Semi-Automated Wildfire Detection Systems** *Presented by Colin McFayden, OMNR - AFFES*
P3	**Aviation Forest Fire and Emergency Services Northern Community Tool** *Presented by Darcy Dayman, OMNR – AFFES*
P4	**Project FireEye** *Presented by Franco Nogarin, GRWT-ENR-FMD*
P5	**Values at Risk in the Northwest Territory** *Presented by Vera Lindsay, GNWT-ENR-FMD*
P6	**Operations Research Tools to Address the Challenge of Uncertainty in Wildfire Management** *Presented by James Minas, RMIT University, Melbourne Australia*
P7	**Night-Vision Device Aided Aerial Forest Fire Detection: Experience in a Controlled Test Grid** *Presented by Tetyana Andriychuk, York University*
P8	**Visual Information Management within Fire Response Organizations** *Presented by Erin Heuston, Carleton University*
P9	**Weather Damaged Fuels Hazard Rating System** *Presented by Al O'Connor, OMNR- AFFES*
P10	**Prescribed Burning in Hazardous Fuels in the West Fire Region of Ontario** *Presented by Al O'Connor, OMNR- AFFES*
P11	**Estimating Fuel Loading in Weather Damaged Forest Conditions in Ontario** *Presented by Mark Roddick/Dan Corbett, OMNR – Northwest Science and Information*

Also a poster