Article

Evaluating Unmanned Aerial Vehicle Images for Estimating Forest Canopy Fuels in a Ponderosa Pine Stand

Patrick Shin [1], Temuulen Sankey [2,*], Margaret M. Moore [3] and Andrea E. Thode [3]

[1] School of Earth Sciences and Environmental Sustainability, Northern Arizona University, 525 S Beaver St, Flagstaff, AZ 86011, USA; patrick.shin@nau.edu

[2] School of Informatics, Computing, and Cyber Systems, Northern Arizona University, 1295 S Knoles Dr, Flagstaff, AZ 86011, USA

[3] School of Forestry, Northern Arizona University, 200 E Pine Knoll Dr, Flagstaff, AZ 86011, USA; margaret.moore@nau.edu (M.M.M.); andi.thode@nau.edu (A.E.T.)

* Correspondence: temuulen.sankey@nau.edu; Tel.: +1-928-523-7098

Table S1. FlamMap parameters that remained constant through all crown fire behavior iterations. Constants used were those observed during the Schultz Fire of 2010. Fuel moisture refers to the percent of dry weight of the fuel type. 1 hour fuels are dead fuels 0.66 to 2.5 cm in diameter, 10 hour fuels are 2.5 to 7.6 cm in diameter, and 100 hour fuels are 7.6 to 20.3 cm in diameter. The crown fire calculation method refers to the particular method used to calculate the potential for surface, passive, or active crown fire.

Fuel Moisture					Winds		Canopy Characteristics	Crown Fire Calculation
1 hour fuel	10 hour fuel	100 hour fuel	Live Herbaceous	Live Woody	Azimuth	Speed	Foliar Moisture Content	Method
2%	2%	6%	65%	65%	215 degrees	25 MPH @ 20'	100%	Scott/ Reinhardt (2001)