Extreme Weather and Climate COLUMBIA UNIVERSITY

Challenges Facing Wildland Fire Forecasters

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Forecasting for wildland fire is an integral part of managing and suppressing fire on the landscape. It provides critical information to land managers for anticipating where fire is likely, when and where to positioning firefighting resources to maximize effectiveness and efficiency, and ultimately, for the protection of life and property. As with any forecast endeavor, there are challenges. Wildland fire varies across the country both seasonally and geographically. It is affected not only by the natural elements of weather and vegetation but also by the day-to-day activities of people. Number of ignitions, spread or growth rates, and final size of fires provide some usefulness in accounting but their value in forecasting decreases when factors such as management strategies, values at risk, and resource capabilities enter the equation. Meteorologists must rethink how wildland fire forecasts are made. This will require better definitions of what is being forecast, approaching the problem from the perspective of fire business, and providing a scalable product to address spatial and temporal needs.