How to Predict the Spread and Intensity of Forest and Range Fires

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Abstract
This manual documents procedures for estimating the rate of forward spread, intensity, flame length, and size of fires burning in forests and rangelands. Contains instructions for obtaining fuel and weather data, calculating fire behavior, and interpreting the results for application to actual fire problems. Potential uses include fire prediction, fire planning, dispatching, prescribed fires, and monitoring managed fires.

Included are sections that deal with fuel model selection, fuel moisture, wind, slope, calculations with nomograms, TI-59 calculations, point source, line fire, interpretations of outputs, and growth predictions.

Comments
This item was written and prepared by U.S. Government employees on official time, and is therefore in the public domain.

Recommended Citation

Forest fires cause wide ranging adverse ecological, economic and social impacts. In a nutshell, fires cause: indirect effect on agricultural production; and loss of livelihood for the tribals as approximately 65 million people are classified as tribals who directly depend upon collection of non-timber forest products from the forest areas for their livelihood. of tropical forest and the demand for conversion of forest to other land uses, have resulted in significant increase in wild fire size, frequency and related environmental impacts. Recent wild fires have an immense impact in Indonesia, Brazil, Mexico, Canada, USA, France, Turkey, Greece, India and Italy. b. A general statement regarding how to counter the negative impacts of fire. c. Definition of an overall fire management strategy.