



# Out on a Limb . . . Forestry Tidbits from the Niobrara Valley

by Sandy Benson

Forest Fuels Management Specialist, Nebraska Forest Service

## Wildfire simulator offers training opportunities for firefighters

Severe wildfires are a cause for concern across most western states these days. From the recent inferno in Canada, to blazes in Oregon and California, extreme fires are weaving themselves into the fabric of disaster preparedness and emergency management. In Nebraska, however, when fire season heats up firefighters will be even more prepared to meet them head on—thanks in part to a new state-of-the-art training tool.



Valentine Middle School students treated to a demonstration of the Simtable in May.

Simtable is the next generation of agent-based modeling. Simply put, it demonstrates how fires will behave and what impacts different techniques might have on them. The simulator projects a topography map onto a sand table that can be shaped to correspond to the actual terrain. When a simulated fire is added, the computer generates how different fuel types, wind speeds and directions, temperatures, and relative humidity will interact. Firefighting resources such as engines, air tankers, hand crews, and helicopters can be added to the simulation from different locations while the computer adjusts the model in real-time.

The Nebraska Forest Service (NFS) operates two Simtables in the state. Based in Ainsworth and Chadron, these tables join a limited number that are currently being incorporated into trainings across the country.

“To have two tables available for training in Nebraska is a really big deal,” said Justin Nickless, NFS Fire Management Specialist. “There are only 70 in the entire United States, giving us a unique and powerful resource to train firefighters.”

Traditional sand table training involves long set-up times, crude representations of topography, and not-to-scale physical models of equipment, roads and buildings. Nickless says that instead of using made-up scenarios, the Simtable uses real maps that pull in actual terrain and realistic fire conditions.

“I think it’s a great tool to show people what fire does and how controlling the [density of woody fuels] dramatically changes fire behavior,” said Bassett Fire Chief Jim Stout, referring to areas with thinned vegetation that burn with less intensity than areas that remain dense.

The Simtable will be on display in the fire department booth at the Sandhills Ranch Expo at the Rock County Fairgrounds in Bassett June 15 and 16.

Local fire departments or mutual aid districts desiring to see or use this new tool for training can call Justin Nickless at 402-760-1930 to make arrangements.

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The Simtable was demonstrated during the KBR Mutual Aid meeting in Ainsworth May 31.