COLLABORATING FOR SUCCESS: IMPLEMENTATION OF THE INTERIOR ALASKA INVENTORY

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Abstract—Interior Alaska's boreal forests are approximately 112 million acres in size, or 15 percent of the United States forest land. This is currently a very dynamic region with rising temperatures, melting permafrost, changes in vegetation, fire, carbon, and water cycles due to a warming climate. This is the last forested area in the United States where the national Forest Inventory and Analysis (FIA) program has not been implemented largely due to its remoteness, size, lack of infrastructure, complex logistics, and cost. A pilot study was conducted in the Tanana Valley in 2014 aimed at testing a cost-effective inventory design that utilized a combination of field plots containing new protocols in conjunction with the latest airborne, remote sensing technology. In addition to the national FIA protocols, some interior specific variables tested were: a modified P3 soils protocol (carbon, permafrost), ground cover (mosses and lichens), tree cores (ring analysis), a modified P3 down wood protocol (carbon), and a second microplot (to better characterize small diameter trees). The success of the pilot can be attributed to developing cooperative partnerships between the US Forest Service (USFS), NASA, US Fish and Wildlife Service, State of Alaska-Division of Forestry (DOF), and the University of Alaska-Fairbanks (UAF). Plans for initial phases of implementation beginning in 2016 are moving forward with joint venture agreements between the USFS, DOF, and UAF to continue installing FIA plots in the Tanana Valley. Developing additional partnerships with organizations like the National Park Service, Bureau of Land Management and Native Corporations will be critical for implementation of the interior Alaska inventory. The long term goal is full implementation with a 1/5 intensity FIA grid, approximately 4600 plots over 10-12 years, divided into five inventory units, including a large aviation component, with an estimated average annual budget of $2.5 million per year.

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