



Unique forest service program saves money and lives with innovative technology

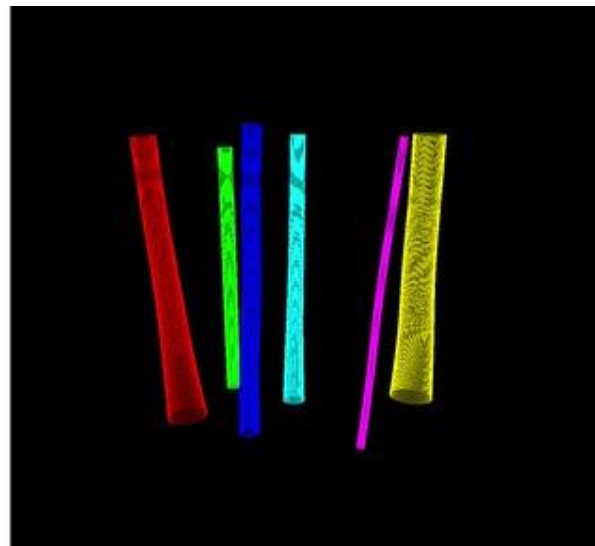
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Gifford Pinchot, founding father of the USDA Forest Service, revolutionized American forestry in the late 1800s and recognized the need for science-based forestry. The Forest service embraces innovation, science and technology to this day, and one program has exemplified that spirit for the past 75 years.

Shortly after World War II ended in 1945, the United States found itself with a sudden surplus of military equipment. True to its history of innovation, the Forest Service jumped at this peacetime opportunity and created the National Technology and Development Program. This program established two centers in California and Montana tasked with repurposing this surplus military equipment to better fight wildfires.

The centers found cost-saving ways to standardize fire equipment like hoses, pumps, and couplings that make it easier to repair and replace broken parts. They refined harnesses, parachutes, and other equipment used in the deployment of firefighters from aircraft to fight fire more effectively in remote locations. To this day, firefighters still rely on these and other life-saving advances like rappelling and parachuting equipment, as well as the portable fire shelter, which has saved more than 300 lives.

Over the years, the program's scope has expanded from fire to include forest management, recreation and engineering research. The program has recently developed artificial intelligence software that connects with logging equipment to more accurately identify which trees to harvest or retain to better manage the landscape.



Other modern advances include updating unmanned aerial systems, or "drones," to conduct prescribed fires – also known as prescribed or controlled burns – in remote areas. These fires, performed under controlled conditions by fire experts, land managers, and with the help of drones, can be a useful tool in restoring unhealthy ecosystems, and reducing hazardous fuel that threaten people, communities and resources.

The National Technology and Development Program also maintains consistent equipment standards across the agency for products like fire retardants and personal protective equipment. This allows

the Forest Service to purchase this widely used equipment in bulk, saving the agency more than \$40 million every year.

For all its futuristic work, the program also preserves the Forest Service's past by maintaining an archive of historical drawings, blueprints and manuals on how to use tools as rudimentary as axes and crosscut saws.

Source: <https://www.usda.gov/media/blog/2021/01/06/unique-forest-service-program-saves-money-and-lives-innovative-technology>