

Figure 3– Drop pattern characteristics for the Bambi 324-gallon helibucket with an airspeed of 59 knots and a drop height of 47 feet. The contour lines are at 0.5, 1, 2, 3, 4, 6, 8, and 10 gallons per 100 square feet.



Figure 4– Drop pattern characteristics for the Bambi 324-gallon helibucket with an airspeed of 19 knots and a drop height of 47 feet. The contour lines are at 0.5, 1, 2, 3, 4, 6, 8, and 10 gallons per 100 square feet.



Figure 5– Use the graph to estimate the speed needed to produce the longest line of water at various coverage levels.



Figure 6– Use the graph to estimate the speed needed to produce the longest line of foam at various coverage levels.



Figure 7– Use the graph to estimate the speed needed to produce the longest line of gum-thickened retardant at various coverage levels.



About the Authors...

Gregg Johnson is Project Leader of the Aerial Delivery Systems Project for the Wildland Fire Chemical Systems Program at MTDC. He received his bachelor's degree in chemistry from the University of Montana in 1969 and has more than 30 years experience in retardant chemical and aerial delivery systems research. He has worked for the Rocky Mountain Research Station's Fire Sciences Laboratory in Missoula and for MTDC.

Cammie Jordan is a Project Assistant for the Wildland Fire Chemical Systems Program at MTDC. She is an elementary education student at the University of Montana and has worked for MTDC since 1998.

Additional single copies of this document may be ordered from:

USDA Forest Service Missoula Technology and Development Center Building 1, Fort Missoula Missoula, MT 59804-7294 Phone: (406) 329-3978 Fax: (406) 329-3719

For additional technical information, contact Paul Solarz at the address above.

Phone: (406) 329-4719 Fax: (406) 329-4811 Internet: psolarz@fs.fed.us Lotus Notes: Paul Solarz/WO/USDAFS An electronic copy of this document is available on the Forest Service's FSWeb Intranet at: http://fsweb.mtdc.wo.fs.fed.us

Figure 8– Drop test of the Bambi 324-gallon helibucket.

The Forest Service, United States Department of Agriculture, has developed this information for the guidance of its employees, its contractors, and its cooperating Federal and State agencies, and is not responsible for the interpretation or use of this information by anyone except its own employees. The use of trade, firm, or corporation names in this publication is for the information and convenience of the reader, and does not constitute an endorsement by the Department of any product or service to the exclusion of others that may be suitable. The United States Department of Agriculture (USDA), prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, and so forth) should phone USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue SW, Washington, DC 20250-9410, or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.