

General Description

Drop Pattern Test

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Retardant will be tested for airdrop characteristics when deemed necessary by the Forest Service. Retardant to be tested will be air dropped BY interagency Airtanker Board approved aircraft. The drop tests will be performed over an array of plastic bowls that are approximately one-quart containers. See Figures 1 and 2. The quantity of material in each bowl will be measured and the data used to determine drop patterns.

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Drops will be made at 125 knots from a height of 200 feet (60 meters). The aircraft will be capable of dropping at least 500 gallons (1900 liters) in a single drop.

Two different flow rates will be used for the test. One less than 200 gallons (750 liters) per second and the other flow rate greater than 200 gallons (750 liters) per second. Ideally the drops will be in the 150-gallon (570 liters) per second and 400 gallons (1500 liters) per second range.

The mixed retardant will demonstrate a capability of producing ground pattern lengths and total recovery equal to or greater than the values produced by using water.

A specific test plan will be developed by the Forest Service based on parameters developed and /or determined during the laboratory phase of the retardant evaluation.

Drop tests will be made following the test procedures described in the publication, An Evaluation of Drop Test Characteristics and Ground Patterns of Forest Fire Retardants, USDA Forest Service, Research Paper INT-134 (1973), 60 pages, illustrated, Intermountain Forest and Range Experiment Station, Ogden, UT, by C. W. George and A. D. Blakely.