



Aerial Tank and Gating Testing

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Airtankers and helitankers are tested to...

- Evaluate the delivery system
- Evaluate ground pattern performance data
- Assist with tank and gating design improvements
- Define management practices and tactics



Static Testing:

Water is dropped from the tank which is either attached to the aircraft or on a stand. The flow rate, door opening rate, and internal tank pressure are measured to evaluate the system.



Drop Testing:

The airtanker makes a drop over a grid of approximately 2000 cups to determine the ground pattern distribution over a range of speeds, heights, fire fighting chemicals and flow rates. Wind, temperature and relative humidity are monitored to compare impacts on drop performance.

From the grid information, contour and 3-dimensional plots of the ground patterns are created to evaluate the efficiency of the tank and gating system. The contour plots are similar to topographic maps using coverage levels for the contour lines.

