

Figure 3—Drop pattern characteristics for the Griffith 100-gallon helibucket with an airspeed of 47 knots and a drop height of 42 feet. The contour lines are at coverage levels of 0.5, 1, 2, 3, 4, 6, 8, and 10 gallons per 100 square feet.

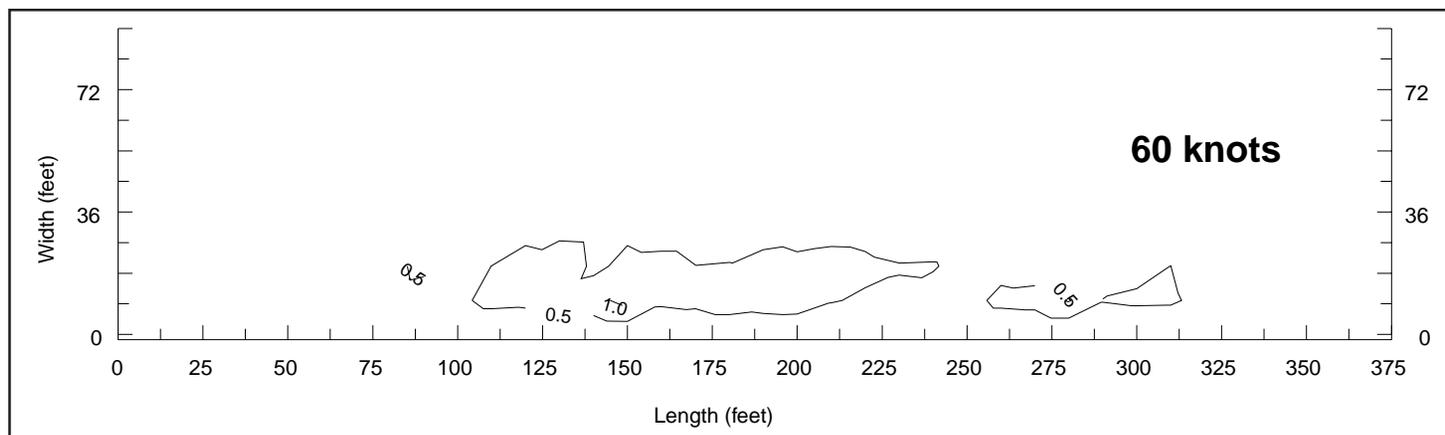


Figure 4—Drop pattern characteristics for the Griffith 100-gallon helibucket with an airspeed of 60 knots and a drop height of 64 feet. The contour lines are at coverage levels of 0.5, 1, 2, 3, 4, 6, 8, and 10 gallons per 100 square feet.

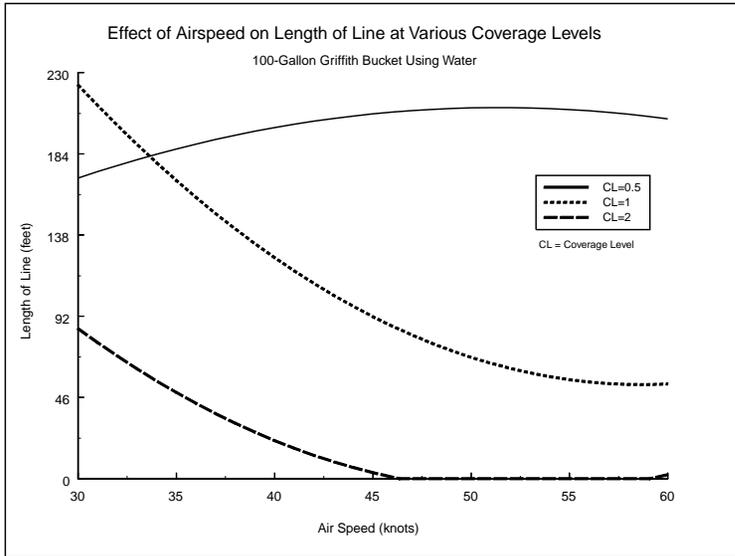


Figure 5—Use this graph to estimate the speed needed to produce the longest line of water at various coverage levels.

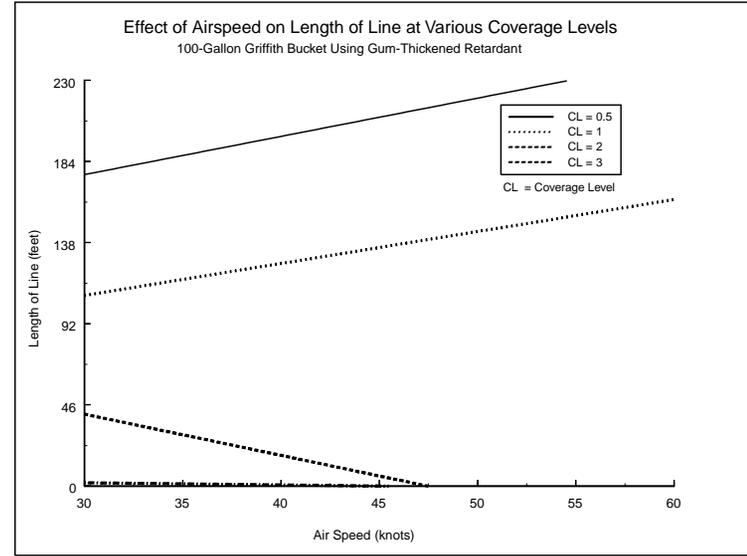


Figure 7—Use this graph to estimate the speed needed to produce the longest line of gum-thickened retardant at various coverage levels.

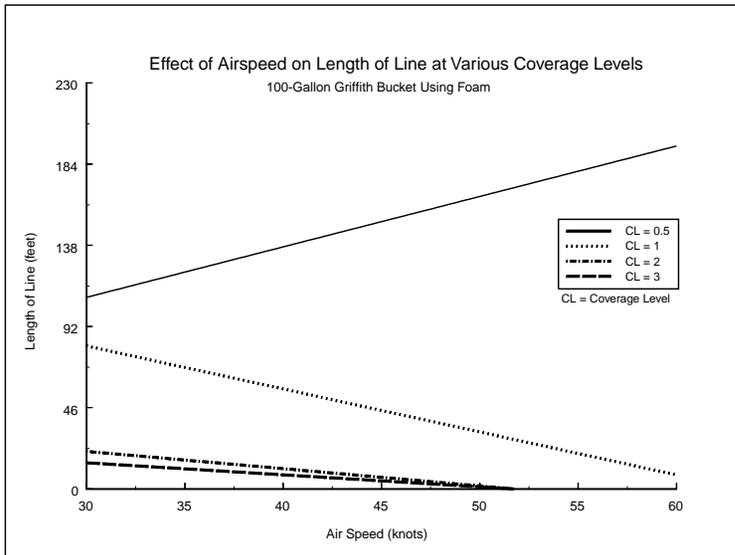


Figure 6—Use this graph to estimate the speed needed to produce the longest line of foam at various coverage levels.

To select the proper helicopter speed, use Table 1 to determine the coverage level required by the NFDRS or Fire Behavior Fuel Model. The coverage levels in Table 1 represent the coverage level required for the average fire intensity for each fuel model. The required coverage level can be adjusted up or down depending on the actual fire intensity. Once the required coverage level is determined, the airspeed can be found. Use the graph for the material dropped (water, foam, or gum-thickened retardant) to find the speed that produces the longest line for the desired coverage level. The same information can be found in the appropriate drop table.

For example, if a fire is burning in NFDRS

Fuel Model C (Fire Behavior Model 2), represented by conifer with grass, Table 1 shows that a coverage level of 2 is required. The graph for water shows that for coverage level 2, an airspeed of about 36 knots produces the longest line.

The ground drop characteristics for the Griffith 100-gallon helibucket were derived through controlled drop test procedures on flat ground (Figure 8). This information is to serve only as a guide in assisting field personnel to determine the proper drop height and airspeed for delivering water, foam, or gum-thickened retardant. Actual coverage may vary depending on terrain, wind, weather, and pilot proficiency.



Figure 8—Drop test of the Griffith 100-gallon helibucket.

About the Author...

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