CONTROL LINE SPEED RULES – 2007

(Numbers in small font are AMA Rules maximum speeds for lines and maximum speeds for pull tests in MPH.)

CLASS	LAPS TIMED	LINE LENGTH	LINE DIAMETER 1 - LINE	LINE DIAMETER 2 - LINES	MINIMUM BUTTON DIAMETER INSIDE	MAXIMUM WEIGHT WITH FUEL	PULL TEST
			Steel Music Wire, ASTM-A228 Only. Solder or Epoxy All Terminations.				
½A Fuel + 0.25 Oz	5	47.47' 47' - 5⅝"	0.014" 167.38MPH (minimum 0.0135")	0.012" 178.72MPH (minimum 0.0115")	0.112" / 0.100"	10 oz	48 G 160.75
½A PROFILE PROTO	10	42' - 0"	–	0.010" 148.15 (min 0.0095")	0.080"	9 oz	32 G 123.46
A Fuel + 1.0 Oz	6	65' - 0"	0.022" 203.42 (min 0.0215")	0.018" 208.36 (min 0.0175")	0.125"	22 oz	50 G 191.98
B Fuel + 2.0 Oz	6	70' - 0"	0.026" 196.15 (min 0.0255")	0.020" 189.41 (min 0.0195")	0.125"	35 oz	48 G 195.21
D Fuel + 3.0 Oz	6	70' - 0"	0.033" 212.01 (min 0.0325")	0.026" 209.76 (min 0.0255")	0.125"	47 oz	52 G 203.18
JET Fuel + 8.0 Oz	6	70' - 0"	0.033" 212.01 (min 0.0325")	0.026" 209.76 (min 0.0255")	0.125"	47 oz	56 G + 56# ON PIPE 210.85
SPORT JET Fuel + 6.0 Oz	7	60' – 0"	–	0.022" 169.35 (min 0.0215")	0.125"	45 oz	42 G + 40# ON PIPE 169.05
FORMULA **40** Fuel + 2.0 Oz	14	60' - 0"	–	0.020" 177.92 (min 0.0195")	0.125"	34 oz	48 G 180.73
21 SPORT Fuel + 1.0 Oz	7	60' - 0"	–	0.018" 184.14 (min 0.0175")	0.125"	26 oz	40 G 164.98
21 PROTO Fuel + 1.0 Oz	14	60' - 0"	–	0.016" 153.13 (min 0.0155")	0.125"	30 oz	32 G 147.56
A ELECTRIC	10	42' - 0"	–	0.012" 97.06 (min 0.0115")	0.112"	30 oz	25 G 109.12
B ELECTRIC	7	60' - 0"	–	0.018" 121.22 (min 0.0175")	0.125"	60 oz	25 G 130.43
F.A.I. F2A	9	17.69 M 58.04' 58' ½"	–	0.389mm to 0.411mm 0.01531" to 0.01618" 196.63	0.125"	–	50 G 181.41

If one line of a two-line system fails, or if a monoline fails, the lines will be impounded and examined for failure cause.

FUEL: For all AMA Classes: 10% NITROMETHANE, 70% METHANOL, 20% LUBRICANTS.
For Jet & Sport Jet: 80% METHANOL, 20% PROPYLENE OXIDE. For F.A.I. F2A: 80% METHANOL, 20% CASTOR OIL.

Speed formulas based on actual distance of timed laps, except for F2A which assumes one kilometer:

For **B, D, JET, SPORT JET, 21 SPORT, ½A Proto, A & B ELECTRIC:**

$$Vmph = \frac{1799.28}{TIME\ in\ SEC}$$

For **Formula 40 & 21 Proto:**

$$Vmph = \frac{3598.55}{TIME\ in\ SEC}$$

For **½A Speed:**

$$Vmph = \frac{1016.79}{TIME\ in\ SEC}$$

For **A Speed:**

$$Vmph = \frac{1670.76}{TIME\ in\ SEC}$$

For **F.A.I. F2A:**

$$Vkph = \frac{3600.00}{TIME\ in\ SEC}$$

Vmph=Vkph **x** 0.6214

Area Elliptical wing= Span x Chord x .7854