



Last Best Hope Mk.IV  
Low Ceiling F1D 2015  
Joshua Finn

Cat I U.S. Record: 19:22  
Dunwoody, GA, 01/03/2015

|                   |             |                                                                             |
|-------------------|-------------|-----------------------------------------------------------------------------|
| <u>Motorstick</u> |             |                                                                             |
| Stick             | 0.140g      | .016 ~4lb # C<br>No boron, .25" inner diameter                              |
| Bracing wire      |             | Dacron unwoven from 8 lb Spiderwire                                         |
| Bearing           |             | .010 Aluminum sheet formed to shape, .050" wide                             |
| Rear hook         |             | .013 music wire                                                             |
| Webs              |             | .016 ~4 lb C grain (doubled around hook and bearing)                        |
| Wing posts        |             | .035 x .060 x 3.75 + 2 .003 Boron                                           |
| Stub              | 0.050 g     | .010 4 # C<br>+ 2 .003 Boron top and bottom<br>.23" inner diameter          |
| <u>Boom</u>       |             |                                                                             |
| Boom              | 0.150 g     | .009 4 # C + 2 .003 Boron<br>Taper from .22" ID to .125" ID                 |
| Rudder Posts      |             | .025 5 # A supports and bottom spreader, .003 Boron outline<br>.050 sq 5# A |
| <u>Wing</u>       |             |                                                                             |
| Spars (2)         | 0.055 g ea. | .045 x .035 5 # B<br>+ 2 .003 Boron top and bottom                          |
| Tips (2)          |             | .025 x .035 4 # A                                                           |
| Int. ribs (3)     |             | .020 x .040 -> .020x.025 4 # C<br>5.8% Simplex-arc hybrid                   |
| End ribs (2)      |             | .025 x .050 4 # A<br>4% Simplex                                             |
| <u>Stab</u>       |             |                                                                             |
| Spars             |             | .025 x .050 -> .025 x .030 4# A                                             |
| Ribs (5)          |             | .025 x .035 4 # A<br>2% Simplex                                             |
| <u>Prop</u>       |             |                                                                             |
| Outline           |             | .025 sq 5 # A<br>Bennett "Fliagra" shape                                    |
| Ribs              |             | .025 sq 4 # A<br>4% Simplex                                                 |
| Spars (2)         |             | .060 sq -> .025 sq 5# B                                                     |
| VP hub            |             | Treger mechanism with Schramm pitch limiter                                 |
| Diameter          |             | 17.6"<br>Formed at 28" pitch, tips washed out to 20"                        |
| Low pitch         |             | ~ 20" at tips – adjusted for 58 rpm descent                                 |
| High pitch        |             | ~70"                                                                        |
| <u>Motor</u>      |             |                                                                             |
| Batch             |             | 5/99                                                                        |
| Length            |             | 6.75"                                                                       |
| Weight            |             | 0.398 g w/o O-rings                                                         |
| Turns             |             | 1110 @ 0.46 in-oz                                                           |
| Backoff           |             | None                                                                        |
| Remaining turns   |             | 96                                                                          |
| <u>Weights</u>    |             |                                                                             |
| Stick             | 0.387 g     |                                                                             |
| Boom              | 0.197 g     |                                                                             |
| Wing              | 0.349 g     |                                                                             |
| Stab              | 0.146 g     |                                                                             |
| Prop              | 0.260 g     |                                                                             |
| Ballast           | 0.030 g     |                                                                             |
| Total             | 1.420 g     |                                                                             |

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AMA Cat I F1D Record

Full size propeller outline

