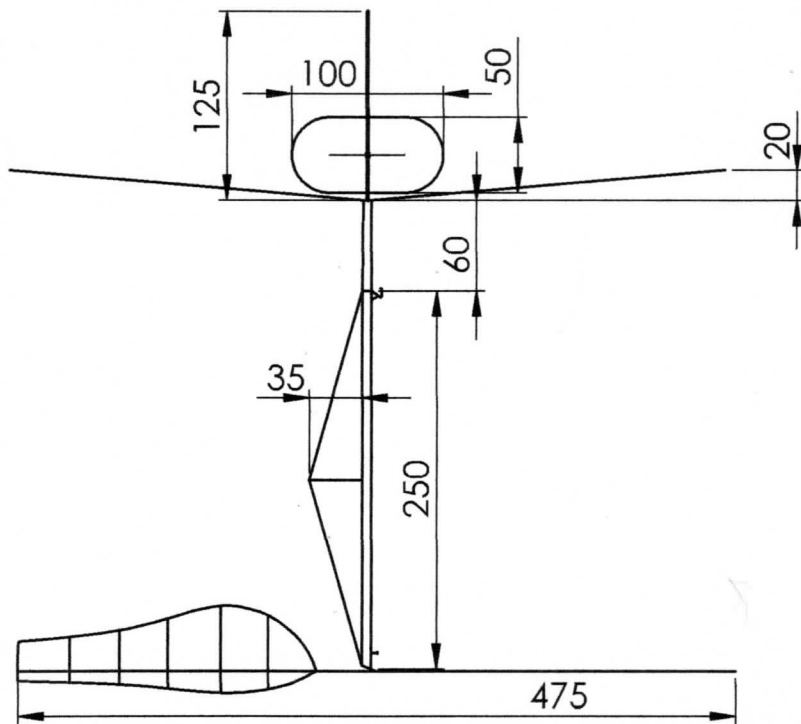




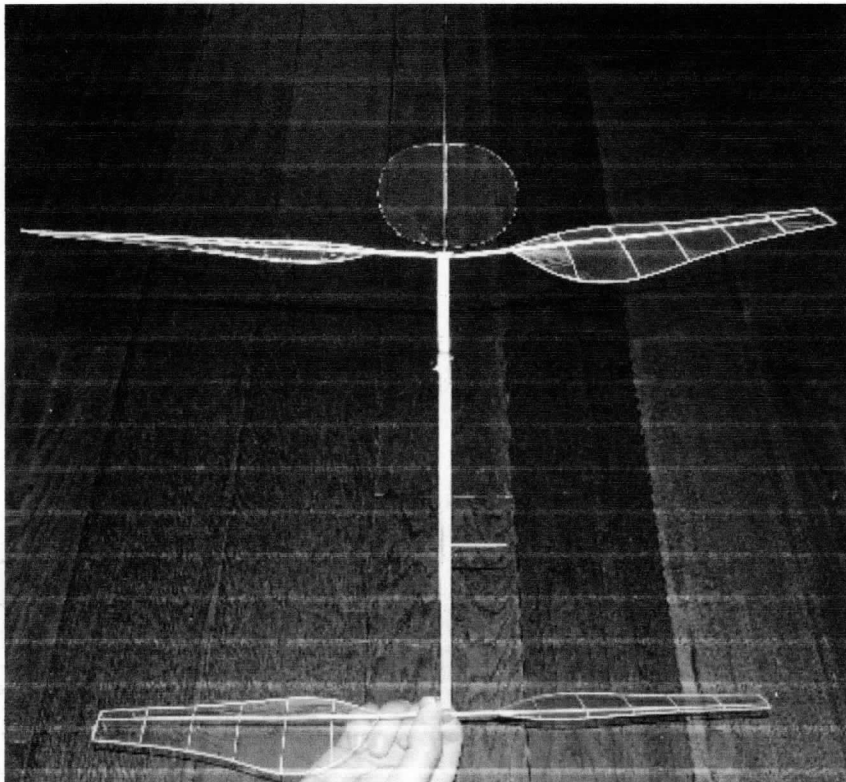
Stick
Blank 0.35 4.3# on 1/4"
mandrel+2x0.004" boron at 4 and 8 h
Webs and caps 0.5 4.3#
Bracing post 1.2x1.2->0.7x0.7 6#
Bearing - Harlan
Rear hook MW 0.33

Rotors
Spar 1.75x1.75-0.65x0.65 5.2#
Outline 0.65x0.65 4.3#
Ribs 0.65x0.75 4.3#
Shaft MW 0.33
Hub ID2.00 polyimide tube

Top assembly
Antenna 0.5 CF rod
Vane 0.004" boron
Spacer 0.3 4.3# on 1/4" mandrel

All coverings - OS film

Radius, mm	40	71	103	138	170	203	237.5
Chord, mm	0	49	57.5	46	36	30	26
Angle, deg	0	17	20.5	15	11	8.5	7



Stick	255
Lower rotor	250
Top assembly	330
<u>Total</u>	<u>835</u>

7:18 Cat II
Rantoul, IL
USIC 2016

Motor 310mm 1.0g, TAN II
3'02
Initial turns: 2000x3g-dm
Turns left 640

Indoor Free Flight Helicopter

by
Bill Silin

- Rotor blades have hyperbolic distribution of chord and twist
- For installation angle of 20.5deg at R103 thrust and torque coefficients are $C_t=0.103$ and $C_q=1.38$
- Spar goes through 1/4 of a chord

22.04.17