

Helicopters C 2012

Tiers:

1. Meets construction and competition guidelines
 2. Construction or competition rule violation(s) without specific included penalty
 3. Disqualified – bad behavior by student, parent, coach
- Tie breaker: Longest time of lesser flight

_____ Better Tier/DQ

_____ Time of Better Tier

School _____

Team _____

Participant _____

Participant _____

Helicopter#1

Helicopter #2

Flight logs inspected – (one set of flight logs/team)(RETURN LOGS)

For each flight: **motor size, # turns, flight time+ 3 other variables**
10 flights minimum - Are the logs complete? _____

Total **Mass** of helicopter W/O rubber motor - **MIN = 3.5 g** _____

Rubber motor(s), any mass _____

Throughout flight – nothing fell off during flight _____

Helicopter(s) must be labeled showing to which team it belongs _____

No commercial rotors (commercial rotor thrust bearings are OK) _____

If a kit was used, no pre-glued joints, no pre-covered surfaces _____

Up to three fixed pitch **rotors**, diameter **MAX = 35.0 cm** _____

No other lifting surfaces / may use any number of blades _____

Motor(s) must be removable for check-in _____

May be lubricated before or after check-in _____

Construction materials of functional components: _____

No Boron filaments. Any other materials are OK. _____

Uppermost surface of helicopter – flat balsa wood disc, _____

Disc large enough to cover a dime, ≥ 18 mm _____

After students enter cordoned off competition area, _____

no communication with parents, coaches, etc. _____

Rule 5c Qualified? 2 or more non-coaxial lifting rotors _____

BEGINNING of the **1st LAUNCH** to BEGINNING of the **2nd LAUNCH:** **MAX = 8 minutes**

Time to 0.01 sec

1st Flight Time: _____:_____

2nd Flight Time: _____:_____

X 2 (Rule 5.c Chinook style) _____:_____

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Subtotal: _____:_____

Subtotal: _____:_____

Minus 1st Flight Penalty _____:_____

Minus 2nd Flight Penalty: _____:_____

1st Adjusted Flight Time: _____:_____

2nd Adjusted Flight Time: _____:_____

Flight time Penalties: No flight log, subtract **30%** of flight time; Flight logs incomplete, subtract **10%** of flight time