



FAI F5J Rules Outline

An overview of the FAI F5J rules

Revision: July 11 2017



Plane Limits

- Can use up to 3 planes
- Max wingspan - 4m, Max mass - 5kg (176.4 oz/11 pounds), Max surface area - 150dm²
- No telemetry allowed except batt. voltage, RX status (i.e. no altitude)
- Must have Altitude Motor Run Timer (AMRT)
- No skegs allowed



AMRT (limiter) details

- Records and displays max height between motor start and 10 sec after cutoff
- Restricts motor run to 30 sec max
- Emergency motor restarts allowed in F5J USA Tour events (FAI rules deviation 2017)



Flying Site

- **No obstructions within 100mtr of launch/land spots**
- **Lane spacing 10mtr min.**
- **Access Corridor 6mtr wide and ≥ 15 mtr from launch/land spots**
 - Main thoroughfare for persons walking to a launch/land lane
 - Mark with rope, flags, or barrier tape on ground



Safety

- **CD defines Safety Area**
 - Access Corridor + other restricted flying areas
- **Infringement of Safety Area: 300 pt penalty**
- **Plane hitting person in Access Corridor: 1000 pt penalty. Ouch!**
- **FAI recommendation: Always enter thermal in same direction as existing planes**



Flights

- **Min. of 4 qualifying rounds**
- **Re-flights allowed when**
 - Plane collides with another
 - Flight is hindered due to “unexpected event”
- **If you continue to fly you waive re-flight right**
- **Re-flights assigned as**
 - Add-on into next group, or
 - New re-flight group (6 pilots min. via random draw)



Zero flights

- **Zero flight score if**
 - Plane loses a part during launch or flight
 - Launch is >4mtr away from land spot
 - Nose of plane lands >75mtr from land spot
 - AMRT fails to display Start Height
 - Overfly end signal by 1min or more
 - Motor restarted after launch (F5J USA Tour deviation)



Penalties

- **Infringement of Safety Area: 300 pts**
- **Plane hits person in Access Corridor: 1000pts**
- **Launch direction violation: 100 pts**
- **Motor starts before start signal: 100 pts**
- **Land direction violation: 100 pts**



Groups and Working Times

- **Min. 6 pilots/group**
- **Group draws minimize flying against the same pilot many times**
 - GliderScore scoring program ensures this
- **Each round starts with Prep Time**
- **Qualifying rounds are 10min Working Time**
- **Fly-off rounds are 15min Working Time**



Launching (1)

- **Launch direction set by CD**
 - 100pt penalty for violating
- **Must launch within 4mtr of land spot**
 - Zero flight score for violating
- **Launches must be in straight forward direction**
 - CD may give guidance on when can change path



Launching (2)

- **Motor must not start until start signal**
 - 100pt penalty for violating
- **Must launch with motor running**



Landing

- **Landing direction set by CD**
 - 100pt penalty for violating
- **Zero landing if plane hits pilot or helper**
- **Okay to retrieve plane before end of Working Time**
- **Zero flight if nose of plane lands >75mtr from land spot**



Scoring: Duration score

- Time starts at release of plane
- Time stops at contact with ground or object touching ground or end signal
- Duration score: 1 pt/sec, rounded down to nearest second (i.e. truncated)
- Overflying end signal = zero landing points
- Overflying end signal by 1min or more = zero flight



Scoring: Start Height Penalty

- **Start Height = highest point between motor on and 10 sec after motor off**
- **Start Height rounded down to nearest meter (i.e. truncated)**
- **Start Height Penalty = 0.5pt/mtr up to 200mtr, 3pt/mtr above 200mtr**



Scoring: Land Bonus

- Landing Bonus 50pt max for 10mtr tape (5pt/mtr)
- Landing distance measured from tip of plane's nose
- Zero landing bonus if overfly the Working Time end signal



Scoring: Total Round Score

- **Total = duration points + land bonus - start height penalty**
- **Normalization**
 - Highest total score in each group is normalized to 1000 for top pilot
 - Total is Normalized (differs from ALES where landings are usually *added* to normalized scores)



Discarded Rounds

- **If more than 4 qualifying rounds are flown
FAI rules dictate 1 discard**
 - Lowest qualifying round's score is discarded
- **All “zero flights” are discard candidates**
 - Penalties are *never* discarded
- **No discards in fly-offs**



Fly-off Rounds

- **CD may elect to not have fly-offs if announced before the contest starts**
- **Top 30% (rounded down) of pilots participate**
- **FAI says 3 or 4 fly-off rounds**
 - 2 if bad weather or poor visibility
- **Qualifying round scores do not carry into fly-offs**



Any Questions?

