

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 >75 mtr 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