

F3K — Hand Launch Gliders

General

- 1 A contest where RC gliders must be hand-launched and accomplish specific tasks. A full contest should consist of at least five rounds. Each competitor is allowed one helper who is allowed to become physically involved in the flight. The designated thrower must touch the pilot before each successive throw, otherwise the flight is annulled. If there are sufficient entries and junior and senior classes are scored separately, the limit is 18 years of age for juniors at 1st January of that year.
- 2 Competitors not involved in flying or helping another competitor may be asked by the organiser to operate as timekeepers.

Definition of model aircraft

- 3 Model aircraft are gliders, with the following limitations —
- 4 Wingspan max: 1500 mm
- 5 Weight max: 600 g
- 6 Radius of the nose, minimum 5 mm in all orientations
(see F3B nose definition for measurement technique).
- 7 The model must be launched by hand and controlled by radio equipment acting on an unlimited number of surfaces.
- 8 The competitor may at any time change his model as long as they all confirm to the specifications and are operated at the assigned frequency.
- 9 Each competitor must nominate two frequencies on which his model may be operated, and the organiser may assign either of these frequencies for the duration of any round or the complete contest.

Definition of the flying field

- 10 The flying field should be reasonably level and large enough to allow several aircraft to fly simultaneously. The main source of lift should not be slope lift. The organiser must define the launching and landing area before the start of the contest and all launching and landings should happen within this area. Any launch or landing outside this area scores a zero for that flight but the flight may be attempted again within the same working time.

Definition of landing

- 11 A landing is considered valid if —
- the model comes to rest with at least one part of it within the launching and landing area,
 - the competitor (or his helper, if launching was done by this person) catches the model by hand, while standing with both feet inside the launching and landing area.

Flight time

- 12 The flight time is measured from the moment the model leaves the hands of the competitor (or his helper, see above) to the moment the model aircraft comes to rest on the ground or ground based object or the competitor (or his helper, see above) catches the model by hand or the working time expires.
- 13 The flight time is official if —
- the launching happens from inside the launching and landing area and the landing happens inside this area
 - the launching happens within the working time of the task
- 14 No re-launches are given for mid-air collisions.

Definition of a round

- 15 The contest is organised in rounds, each of which allocates a competitor a working time identified in the task list. The start and end of the working time are announced with a sound-signalling device. The competitors are arranged in as few groups as possible. A group should be a minimum of 4 pilots. The results are normalised within each group, 1000 points being the basis for the winner of the group.
- 16 For each round, the competitors may receive a 2 minutes preparation time, as announced by the organiser. Alternatively, the working time of the preceding group may be declared the preparation time for the next group.
- 17 During the preparation time, the competitor is allowed to turn on and check his radio, but is not allowed any launch of his model, either outside or inside the launching and landing area.

Final score

- 18 In the case of more than 4 flown tasks the lowest score is crossed out. If more than 8 flown tasks the lowest two scores are crossed out. In case of a tie break the crossed out scores are taken into consideration to get a clear ranking.

Definition of tasks

- 19 Detailed specifications including the tasks to be flown for the day must be announced by the organiser before beginning of the competition. The tasks of the programme are defined below. Depending on the weather conditions and the number of competitors, the details or working time may be altered by decision of the organiser.

No points are deducted for flying over the maximum flight time or for flying after the end of working time. All competitors must land as soon, as their flight or task has been completed.

If the model does not land within 30 seconds after the end of working time (acoustic signal) the last flight scores 0 points. The CD's decision here is final.

- 20 The tasks given below are the currently defined tasks. Any of these tasks may be flown in any order in a competition. The same task may be flown more than once within a competition with or without adjusting the working times.

Task list —

Task A (Last flight)

- 21 During the working time, the competitor may launch the model an undefined number of times, but only the last flight is taken into account to determine the final result .

The length of the flight is limited to 3 minutes.

Any additional release of the model annuls the preceding time.

When the competitor announces that he has completed his last flight (his official flight for this task), he must leave the launching and landing area, together with his timekeeper.

- 22 Working time — 8 minutes. Flight score = 1 point per second.

Task B (All up, Last Down)

- 23 All competitors of a group must launch their model aircraft simultaneously, within 3 seconds after the signal of the organiser.

Maximum measured flight time is 2 minutes.

Each flight time of the 3 attempts of each competitor is to be added up and will be normalised to obtain the final score for this task.

- 24 Time of a slot may be reduced to 2 minutes if the number of competitors is large. The number of launches may be increased to five (5).

- 24 Minimum working time — 7 minutes. Flight score = 1 point per second.

Example —

Competitor A: $45+50+35$ s = 130 s

Competitor B: $50+50+60$ s = 160 s

Competitor C: $30+80+40$ s = 150 s

Task C (Poker — variable target time)

25 Before the first launch, each competitor announces a target time to his timekeeper. He then can perform an unlimited number of launches to reach this time. If the target is reached, the target time is credited and he can announce the next target time, which can be lower, equal or higher. The announcement can be repeated only 5 times. 5 flights with a reached target can be credited. The reached target times are added up.

26 Working time — 10 minutes. Flight score = 1 point per second.

Example—

Announced time		Flight time	Scored time
45 s	1st flight	46 s	45 s
50 s	1st flight	48 s	0 s
	2nd flight	52 s	50 s
47 s	1st flight	49 s	47 s
60 s	1st flight	57 s	0 s
	2nd flight	63 s	60 s
60 s	1st flight	65 s	60 s
		Total	262 s

Task D (Maximum flight time)

27 The total accumulated flight time is recorded, up to a maximum of 2 minutes per flight. The number of launches is unlimited but only the 5 highest scores count.

28 Individual flight times must be recorded and the timer's stopwatch reset between flights due to the need to stop timing at exactly 2 minutes.

29 Working time — 10 minutes. Flight score = 1 point per second.

Task E (Tie breaker / quickie)

(This task can be used as the deciding factor in the event of a tie between pilots, or as a short task due to limitations of available time.)

30 A maximum of 6 launches is allowed, with a maximum flight time of 1 minute. The 5 longest flight times are added up to obtain the score for this round.

31 Working time — 5 minutes. Flight score = 1 point per second.

Task F (1,2,3,4)

- 32 Launch as many times as you want within the working time.
Flights of 1, 2, 3, 4 minutes max need to be flown in any order.
- 33 Your highest four flight times are scored against the four designated times in size order to produce a score.
- 34 Working time — 10 minutes.
Flight score = 1 point per second up to maximum of flight or designated time.

Task G (Second Last and Last Flights)

- 35 Launch as many times as you like only second last and last flights count, with a maximum flight time of 3 minutes.
- 36 Working time — 10 minutes. Flight score = 1 point per second.

Task H (Increasing time):

- 37 During the working time, the competitor may launch as often as he wishes.
- 38 Each competitor must first complete a flight of a pre-determined time — say 15 seconds. Once this is accomplished, subsequent flight times must be incremented by a predetermined amount — say 15 seconds.
So flight times should be — 15s - 30s - 45s - 60s - 75s - 90s
The longest flight time is 90 seconds.
- 39 To reach any specific flight time, the number of launches is unlimited.
- 40 In adverse weather, the organiser may reduce the increment to 1 second
- 41 For each second of flying the competitor will get 1 point, but only to the max. time of this flight — see following example.
- 42 Working time — adjusted according to the time increment

Example — (first flight 15 seconds, increment 15 seconds, working time 7 minutes)

1st flight 18s — the max of 15s is reached. Partial score is 15 points
Next flight should reach 30 seconds.

2nd flight 32s — the max of 30s is reached. Partial score is 15 + 30 points
Next flight should reach 45 seconds.

3rd flight 38s — 45s not reached, score 0

4th flight 42s — 45s not reached, score 0

5th flight 47s — the max of 45s is reached. Partial score is 15 + 30 + 45 = 90 pts
Next flight should reach 60 seconds.

6th flight 81 s — the max of 60s is reached.

Partial score is $15 + 30 + 45 + 60 = 150$ pts

Next flight should reach 75 seconds, but the remaining working time is only 65 seconds.

Total score of the task is $15 + 30 + 45 + 60 = 150$ points

Task I (Time increment)

- 43 During the working time, the competitor may accomplish as many launches as he likes.
- 44 Each competitor must first try to complete a flight of 15 seconds. Once this is accomplished, the next flight's time must be incremented by a predetermined time (say 2 seconds) over the actual time flown in completed seconds.
- 45 The longest flight time is 90 seconds.
- 46 To reach any specific flight time, the number of launches is unlimited.
- 47 The score for the last flight is taken into account only if the flight was longer than the target time before the end of working time.
- 48 Flight scores are given 1 point per completed second of flight time. (see example)
- 49 Working time is adjusted according to the time increment.

Example — (increment 2 seconds, working time 7 minutes)

1 st flight 17.1 s — Score 17 points

(completed seconds of flight time). Next flight should be at least 19 s.

2 nd flight 19.7 s — Score 19 points. Next flight should be at least 21 s.

3 rd flight 20.7 s — 21 s not reached — score for this flight 0 points.

4 th flight 28.4 s — Score 28 points. Next flight should be at least 30 s.
and so on until the end of working time.

Total score of the task is $17 + 19 + 0 + 28 + \dots$